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(54) **4-SUBSTITUTED PYRAZOLINE COMPOUNDS, THEIR PREPARATION AND USE AS MEDICAMENTS**

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(57) **ABSTRACT**

The present invention relates to 4-substituted pyrazoline compounds, methods for their preparation, medicaments comprising these compounds as well as their use for the preparation of a medicament for the treatment of humans and animals.

4-SUBSTITUTED PYRAZOLINE COMPOUNDS, THEIR PREPARATION AND USE AS MEDICAMENTS

CROSS-REFERENCE TO RELATED APPLICATIONS

[0001] This application claims the benefit of priority of U.S. Provisional Patent Application No. 60/705,432, filed Aug. 5, 2005, and European Patent Application No. 05384029, filed Jul. 15, 2005, each of which is hereby incorporated by reference in its entirety.

FIELD OF THE INVENTION

[0002] The present invention relates to 4-substituted pyrazoline compounds, methods for their preparation, medicaments comprising these compounds as well as their use for the preparation of a medicament for the treatment of humans and animals.

BACKGROUND OF THE INVENTION

[0003] Cannabinoids are compounds, which are derived from the cannabis sativa plant which is commonly known as marijuana. The most active-chemical compound of the naturally occurring cannabinoids is tetrahydrocannabinol (THC), particularly Δ^9 -THC.

[0004] These naturally occurring cannabinoids as well as their synthetic analogues promote their physiological effects via binding to specific G-coupled receptors, the so-called cannabinoid-receptors.

[0005] At present, two distinct types of receptors that bind both the naturally occurring and synthetic cannabinoids have been identified and cloned. These receptors, which are designated CB_1 and CB_2 are involved in a variety of physiological or pathophysiological processes in humans and animals, e. g. processes related to the central nervous system, immune system, cardiovascular system, endocrine system, respiratory system, the gastrointestinal tract or to reproduction, as described for example, in Hollister, Pharm. Rev. 38, 1986, 1-20; Reny and Singha, Prog. Drug. Res., 36, 71-114, 1991; Consroe and Sandyk, in Marijuana/Cannabinoids, Neurobiology and Neurophysiology, 459, Murphy L. and Barthe A. Eds., CRC Press, 1992.

[0006] Therefore, compounds, which have a high binding affinity for these cannabinoid receptors and which are suitable for modulating these receptors are useful in the prevention and/or treatment of cannabinoid-receptor related disorders.

[0007] In particular, the CB_1 -receptor is involved in many different food-intake related disorders such as bulimia or obesity, including obesity associated with type II diabetes (non-insulin-dependent diabetes) and thus, compounds suitable for regulating this receptor may be used in the prophylaxis and/or treatment of these disorders.

SUMMARY OF THE INVENTION

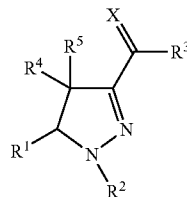
[0008] Thus, it was an object of the present invention to provide novel compounds for use as active substances in medicaments. In particular, these active substances should be suitable for the modulation of cannabinoid receptors, more particularly for the modulation of cannabinoid 1 (CB_1) receptors.

[0009] Said object was achieved by providing the 4-substituted pyrazoline compounds of general formula I given below, their stereoisomers, corresponding salts and corresponding solvates thereof.

[0010] It has been found that these compounds have a high affinity for cannabinoid receptors, particularly for the CB_1 -receptor, and that they act as modulators e. g. antagonists, inverse agonists or agonists on these receptors. They are therefore suitable for the prophylaxis and/or treatment of various disorders related to the central nervous system, the immune system, the cardiovascular system, the endocrine system, the respiratory system, the gastrointestinal tract or reproduction in humans and/or animals, preferably humans including infants, children and grown-ups.

DETAILED DESCRIPTION OF THE INVENTION

[0011] Thus, in one of its aspects the present invention relates to 4-substituted pyrazoline compounds of general formula I,



wherein

[0012] x is O or S;

[0013] R^1 and R^2 , independently of one another, in each case represent an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

[0014] or a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

[0015] R^3 an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

[0016] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

[0017] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical

which together with a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical forms a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing spirocyclic residue via a common ring atom;

[0018] ^9a —O—R^6 moiety; a $\text{—NR}^7\text{R}^8$ moiety or a —NR—O—R^{10} moiety;

[0019] R^4 represents F; Cl; Br; I; —CN ; —NO_2 ; —NC ; —OH ; —NH_2 ; —SH ; —C(=O)—H ; —C(=O)—OH ; —C(=O)—OR^{17} ;

[0020] a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0021] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

[0022] an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an optionally at least mono-substituted alkylene group, alkenylene group or alkynylene group;

[0023] a —O—R^{11} moiety; a —S—R^{12} moiety; a —NH—R^{13} moiety or a $\text{—NR}^{14}\text{R}^{15}$ moiety;

[0024] R^5 represents H; F; Cl; Br; I; —CN ; —NO_2 ; —NC ; —OH ; —NH_2 ; —SH ; —C(=O)—H ; —C(=O)—OR^{17} ;

[0025] a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0026] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

[0027] an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

[0028] a —O—R^{11} moiety; a —S—R^{12} moiety; a —NH—R^{13} moiety or a $\text{—NR}^{14}\text{R}^{15}$ moiety;

[0029] or R^4 and R^5 together with the bridging carbon atom form a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical;

[0030] R^6 represents a hydrogen atom;

[0031] a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0032] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

[0033] an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

[0034] a $\text{—P(=O)(OR}^{16})_2$ moiety; a —C(=O)—OR^{17} moiety; a —C(=O)—NH—R^{18} moiety or a —C(=O)—R^{19} moiety;

[0035] R^7 and R^8 , independently of one another, in each case represent a hydrogen atom;

[0036] a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0037] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

[0038] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical which together with a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical forms a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing spirocyclic residue via a common ring atom;

[0039] an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

[0040] a $\text{—P(=O)(OR}^{16})_2$ moiety; a —C(=O)—OR^{17} moiety; a —C(=O)—NH—R^{18} moiety; a —C(=O)—R^{19} moiety; a $\text{—S(=O)}_2\text{—R}^{20}$ moiety; or a $\text{—NR}^{21}\text{R}^{22}$ moiety;

[0041] R^9 represents hydrogen or a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0042] R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{20} , independently of one another, in each case represent a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0043] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

[0044] or an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

[0045] R^{16} , R^{17} , R^{18} and R^{19} , independently of one another, in each case represent a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0046] or an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

and

[0047] R^{21} and R^{22} , independently of one another, in each case represent a hydrogen atom;

[0048] a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

[0049] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

[0050] a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical which together with a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical forms a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing spirocyclic residue via a common ring atom;

[0051] or an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof. The term stereoisomers includes tautomers as well.

[0052] Preferably one or more of the following compounds are excluded

[0053] [A] ethyl 4,5-dimorpholino-1-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[0054] [B] methyl 1-phenyl-4,5-di(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxylate,

[0055] [C] 1-(4-chlorophenyl)-4-(hydroxymethyl)-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid,

[0056] [D] ethyl 5-morpholino-1,4-diphenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[0057] [E] ethyl 4-(4-chlorophenyl)-1-(4-fluorophenyl)-5-morpholino-4,5-dihydro-1H-pyrazole-3-carboxylate,

[0058] [F] ethyl 1-(4-fluorophenyl)-5-morpholino-4-p-tolyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[0059] [G] methyl 4-(hydroxymethyl)-1-(2-(methoxycarbonyl)phenyl)-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[0060] [H] benzofuran-2-yl(5-(4-hydroxyphenyl)-4-nitro-1-(3-phenyl-1H-pyrazol-5-yl)-4,5-dihydro-1H-pyrazol-3-yl)methanone,

[0061] [I] (5-(benzo[d][1,3]dioxol-5-yl)-4-nitro-1-(3-phenyl-1H-pyrazol-5-yl)-4,5-dihydro-1H-pyrazol-3-yl) (benzofuran-2-yl)methanone,

[0062] [J] 3-(benzofuran-2-carbonyl)-5-phenyl-1-(3-phenyl-1H-pyrazol-5-yl)-1H-pyrazole-4,4(5H)-dicarbonitrile,

[0063] [K] (5-(benzo[d][1,3]dioxol-4-yl)-4-nitro-1-(3-phenyl-1H-pyrazol-5-yl)-4,5-dihydro-1H-pyrazol-3-yl) (benzofuran-2-yl)methanone,

[0064] [L] ethyl 1-(3-methoxyphenyl)-5-morpholino-4-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[0065] [M] ethyl 1-(3-methoxyphenyl)-4-phenyl-5-(piperazin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxylate, which is optionally bonded to copolystyrol,

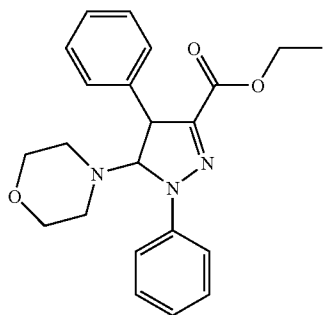
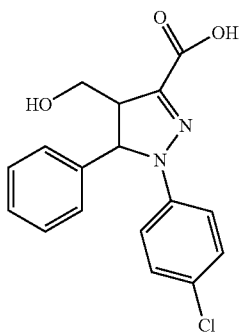
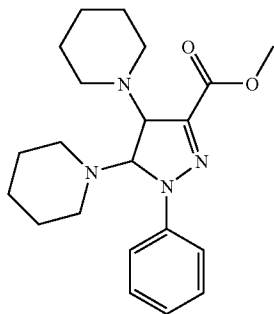
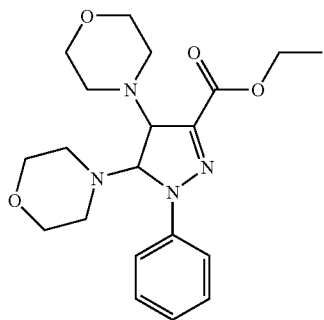
[0066] [N] 1-(3-methoxyphenyl)-4-phenyl-5-(piperazin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid, which is optionally bonded to copolystyrol,

[0067] [O] ethyl 5-(4-oxo-2,3-diphenyl-4,5-dihydro-2H-pyrazolo[4,3-d]pyridazin-7-yl)-1,4-diphenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

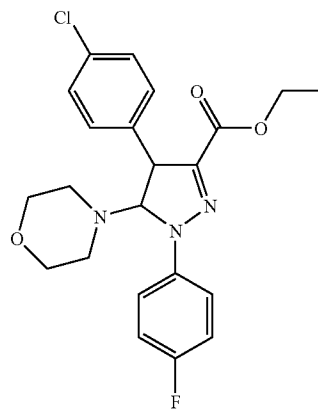
optionally in form of one of their stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of their stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

[0068] The structure of the excluded compounds A to O is depicted below:

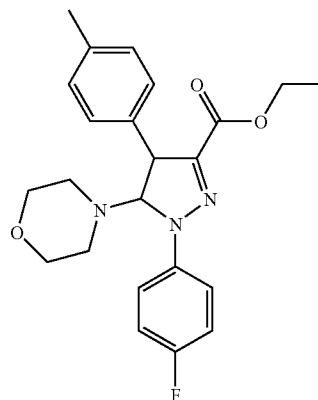
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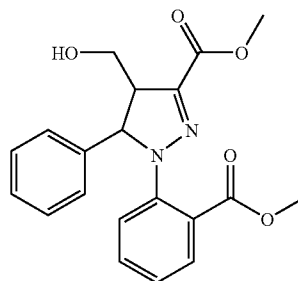
A



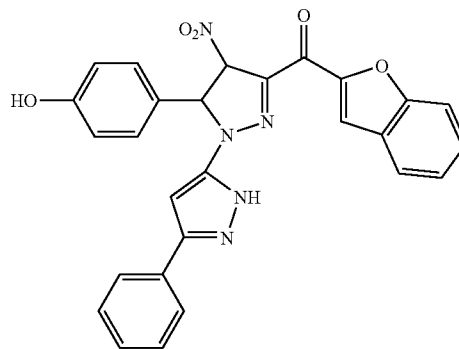
B



C



D

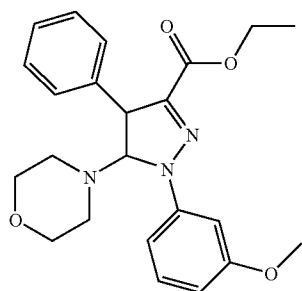
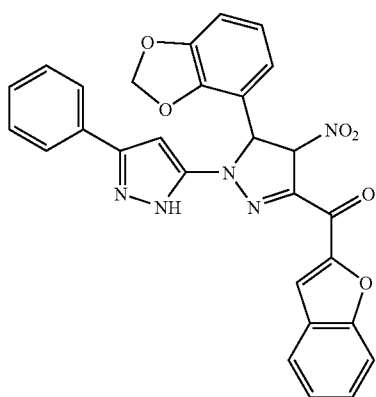
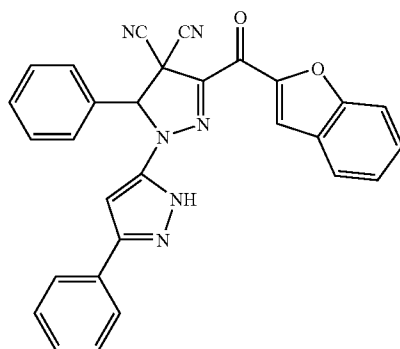
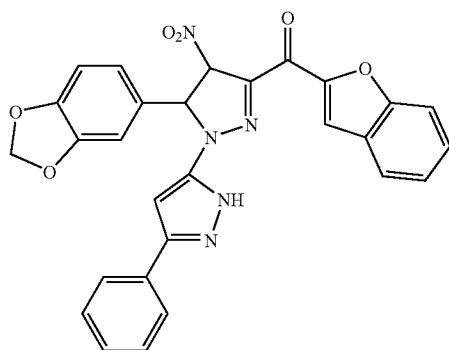


E

G

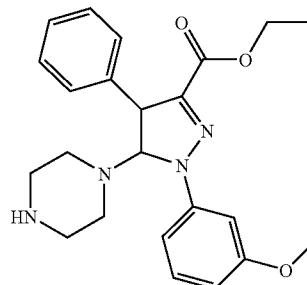
H

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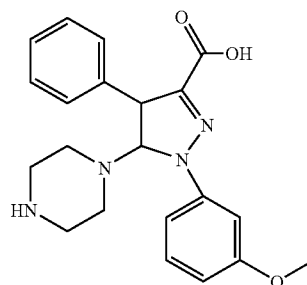
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I



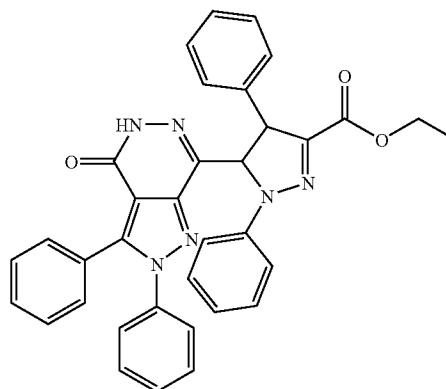
M

J



N

K



O

L

[0069] Also preferably compounds of general formula I, wherein R⁶ represents a benzofuran-2-yl radical, are excluded.

[0070] If one or more of the residues R¹ to R²² represents or comprises an aryl or heteroaryl radical, which may be substituted, unless defined otherwise, preferably said aryl or heteroaryl radical may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —C₁₋₆-perfluoralkyl, —C₁₋₆-alkyl substituted with one or more methoxy and/or ethoxy groups, —C₁₋₆-alkyl, —C₁₋₆-alkyl substituted with one or more hydroxy groups, —C₁₋₆-alkyl substituted with one or more chlorine atoms, —O—C₁₋₆-alkyl, —O—C₁₋₆-alkyl substituted with one or more methoxy and/or ethoxy groups, —S—C₁₋₆-alkyl, —C(=O)—OH, —C(=O)—O—C₁₋₆-alkyl, —O—C(=O)—C₁₋₆-alkyl, F, Cl, Br, I, —CN, —OCF₃, —O—C₂F₅, —O—C₃F₇, —O—C₄F₉, —SCF₃, —SCF₃,

—SCF₂H, —SCFH₂, —OH, —SH, —SO₃H, —NH—C(=O)—C₁₋₆-alkyl, —N(C₁₋₆-alkyl)—C(=O)—C₁₋₆-alkyl, —NO₂, —CHO, —C(=O)—C₁₋₆-alkyl, —C(=O)—C₁₋₆-perfluoroalkyl, —C(=S)—NH—C₁₋₆-alkyl, —CF₂H, —CFH₂, —C(=O)—NR^AR^B, —C(=O)—NH—NR^CR^D, —S(=O)—C₁₋₆-alkyl, —S(=O)₂—C₁₋₆-alkyl, —S(=O)₂-phenyl, —(C₁₋₅-alkylene)—S—C₁₋₆-alkyl, —(C₁₋₅-alkylene)—S(=O)—C₁₋₆-alkyl, —(C₁₋₅-alkylene)—S(=O)₂—C₁₋₆-alkyl, —NR^ER^F, —(C₁₋₅-alkylene)—NR^ER^F, —S(=O)—NH₂, —S(=O), —NH—C₁₋₆-alkyl, —S(=O)₂—NH-phenyl, —NH—S(=O)₂—C₁₋₆-alkyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidinyl, piperidinyl, phenyl, thiophenyl, phenoxy and benzyl;

[0071] whereby in each case the cyclic moieties cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidinyl, piperidinyl, phenyl, thiophenyl, phenoxy and benzyl can optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of F, Cl, Br, I, —OH, —CF₃, —CN, —NO₂, —C₁₋₆-alkyl, —O—C₁₋₆-alkyl, —O—CF₃ and —S—CF₃ and

[0072] whereby R^A, R^B, R^E and R^F, independently of one another, represent hydrogen or —C₁₋₆-alkyl or R^A and R^B in each case together with the bridging nitrogen atom form a radical selected from the group consisting of pyrrolidinyl, imidazolidinyl, piperazinyl, piperidinyl, thiomorpholinyl, morpholinyl, azepanyl and diazepanyl which may be at least mono-substituted with one or more identical or different C₁₆-alkyl radicals

[0073] and whereby R^C and R^D, independently of one another, represent hydrogen, —C₁₋₆-alkyl, —C(=O)—O—C₁₋₆-alkyl, C₃₋₈-cycloalkyl, —(C₁₋₅-alkylene)—C₃₋₈-cycloalkyl, —(C₁₋₆-alkylene)—O—C₁₋₆-alkyl or —C₁₋₆-alkyl substituted with one or more hydroxy groups or R^C and R^D in each case together with the bridging nitrogen atom form a radical selected from the group consisting of pyrrolidinyl, imidazolidinyl, piperazinyl, piperidinyl, thiomorpholinyl, morpholinyl, azepanyl and diazepanyl which may be at least mono-substituted with one or more substituents independently selected from the group consisting —C₁₋₆-alkyl, —C(=O)—C₁₋₆-alkyl, —C(=O)—O—C₁₋₆-alkyl, —C(=O)—NH—C₁₋₆-alkyl, —C(=S)—NH—C₁₋₆-alkyl, oxo (=O), —C₁₋₆-alkyl substituted with one or more hydroxy groups, —(C₁₋₆-alkylene)—O—C₁₋₆-alkyl and —C(=O)—NH₂.

[0074] More preferably said aryl and heteroaryl radicals may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, —C₂F₅, —C₃F₇, —C₄F₉, —CH₂Cl, —CHCl₂, —C₂H₄Cl, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —CH₂—OH, —CH₂—CH₂—OH, —CH₂—CH₂—CH₂—OH, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₃, —S—C(CH₃)₃, —C(=O)—OH, —C(=O)—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C₃H₇, —C(=O)—O—C(CH₃)₃, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —O—C(=O)—

C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —O—C₂F₅, —O—C₃F₇, —O—C₄F₉, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —SO₃H, —NH—C(=O)—CH₃, —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—CF₃, —C(=O)—C₂F₅, —C(=O)—C₃F₇, —C(=S)—NH—CH₃, —C(=S)—NH—C₂H₅, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —C(=O)—NH—NH—CH₃, —C(=O)—NH—NH—C₂H₅, —C(=O)—NH—NH₂, —C(=O)—NH—N(CH₃)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —S(=O)₂-phenyl, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CH₂—N(CH₃)₂, —(CH₂)-morpholinyl, —(CH₂)-piperidinyl, —(CH₂)-piperazinyl, —(CH₂)-N(C₂H₅)₂, —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅), —S(=O)—NH₂, —S(=O)₂—NH—CH₃, —S(=O)₂—NH-phenyl, —NH—S(=O)₂—CH₃, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidinyl, piperidinyl, phenyl, thiophenyl, phenoxy and benzyl, whereby said thiophenyl radical can be substituted with 1, 2 or 3 substituent(s) independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl.

[0075] Preferred aryl radicals which are optionally at least mono-substituted are phenyl and naphthyl (1- and 2-naphthyl).

[0076] Preferably the heteroatoms which are present as ring members in the heteroaryl radical may, unless defined otherwise, independently be selected from the group consisting of nitrogen, oxygen and sulfur. More preferably a heteroaryl radical is 5- to 14-membered and may comprise 1, 2, 3 or 4 heteroatoms independently selected from the group consisting of nitrogen, oxygen and sulfur.

[0077] Preferred heteroaryl radicals which are unsubstituted or at least mono-substituted are pyridinyl, furyl (furan-yl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furan-yl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl, imidazo[2,1-b]thiazolyl, 2H-chromenyl, pyranyl, indazolyl and quinazolinyl.

[0078] Preferred aryl and heteroaryl radicals which are condensed with a mono- or polycyclic ring system are [1,3]-benzodioxolyl, [1,4]-benzodioxanyl, [1,2,3,4]-tetrahydro-naphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, [1,2,3,4]-tetrahydroquinolinyl, [1,2,3,4]-tetrahydroisoquinolinyl, [1,2,3,4]-tetrahydroquinazolinyl and [3,4]-dihydro-2H-benzo[1,4]oxazinyl.

[0079] If one or more of the residues R¹ to R²² represents or comprises a saturated or unsaturated, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, preferably a C₃₋₁₈cycloaliphatic radical, a heterocyclic ring, preferably a 4- to 10 -membered heterocyclic ring, a C₃₋₁₆cycloalkyl radical, a C₄₋₁₆cycloalkenyl radical, a C₄₋₁₆heterocycloalkyl radical, or a C₅₋₁₆heterocycloalkenyl radical, which may be substituted, unless defined otherwise,

preferably said cycloaliphatic radical, heterocyclic ring, C₃₋₁₆cycloalkyl radical, C₄₋₁₆cycloalkenyl radical, C₄₋₁₆heterocycloalkyl radical, or C₅₋₁₆heterocycloalkenyl radical, may in each case optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), -C₁₋₆-perfluoroalkyl, -C₁₋₆-alkyl, -C₁₋₆-alkyl substituted with one or more hydroxy groups, -C₁₋₆-alkyl substituted with one or more chlorine atoms, -C₁₋₆-alkyl substituted with one or more methoxy and/or ethoxy groups, -O-C₁₋₆-alkyl, -O-C₁₋₆-alkyl substituted with one or more methoxy and/or ethoxy groups, -S-C₁₋₆-alkyl, -C(=O)-OH, -C(=O)-O-C₁₋₆-alkyl, -O-C(=O)-C₁₋₆-alkyl, F, Cl, Br, I, -CN, -OCF₃, -O-C₂F₅, -O-C₃F₇, -O-C₄F₉, -SCF₃, -SCF₂H, -SCFH₂, -OH, -SH, -SO₃H, -NH-C(=O)-C₁₋₆-alkyl, -N(C₁₋₆-alkyl)-C(=O)-C₁₋₆-alkyl, -NO₂, -CHO, -C(=O)-C₁₋₆-alkyl, -C(=O)-C₁₋₆-perfluoroalkyl, -C(=S)-NH-C₁₋₆-alkyl, -CF₂H, -CFH₂, -C(=O)-NR^AR^B, -C(=O)-NH-NR^CR^D, -S(=O)-C₁₋₆-alkyl, -S(=O)₂-C₁₋₆-alkyl, -S(=O)₂-phenyl, -(C₁₋₅-alkylene)-S-C₁₋₆-alkyl, -(C₁₋₅-alkylene)-S(=O)-C₁₋₆-alkyl, -(C₁₋₅-alkylene)-S(=O)₂-C₁₋₆-alkyl, -NR^ER^F, -(C₁₋₅-alkylene)-NR^ER^F, -S(=O)-NH₂, -S(=O)₂-NH-C₁₋₆-alkyl, -S(=O)₂-NH-phenyl, -NH-S(=O)₂-C₁₋₆-alkyl, -O-Benzyl, -O-Phenyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidinyl, piperidinyl, phenyl, thiophenyl, phenoxy and benzyl;

[0080] whereby in each case the cyclic moieties cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidinyl, piperidinyl, phenyl, thiophenyl, phenoxy and benzyl can optionally be-substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of F, Cl, Br, I, -OH, -CF₃, -CN, -NO₂, -C₁₋₆-alkyl, -O-C₁₋₆-alkyl, -O-CF₃ and -S-CF₃ and

[0081] whereby R^A, R^B, R^E and R^F, independently of one another, represent hydrogen or -C₁₋₆-alkyl or R^A and R^B in each case together with the bridging nitrogen atom form a radical selected from the group consisting of pyrrolidinyl, imidazolidinyl, piperazinyl, piperidinyl, thiomorpholinyl, morpholinyl, azepanyl and diazepanyl which may be at least mono-substituted with one or more identical or different C₁₋₆-alkyl radicals

[0082] and whereby R^C and R^D, independently of one another, represent hydrogen, -C₁₋₆-alkyl, -C(=O)-O-C₁₋₆-alkyl, C₃₋₈-cycloalkyl, -(C₁₋₅-alkylene)-C₃₋₈-cycloalkyl, -(C₁₋₆-alkylene)-O-C₁₋₆-alkyl or -C₁₋₆-alkyl substituted with one or more hydroxy groups or R^C and R^D in each case together with the bridging nitrogen atom form a radical selected from the group consisting of pyrrolidinyl, imidazolidinyl, piperazinyl, piperidinyl, thiomorpholinyl, morpholinyl, azepanyl and diazepanyl which may be at least mono-substituted with one or more substituents independently selected from the group consisting -C₁₋₆-alkyl, -C(=O)-C₁₋₆-alkyl, -C(=O)-O-C₁₋₆-alkyl, -C(=O)-NH-C₁₋₆-alkyl, -C(=S)-NH-C₁₋₆-alkyl, oxo (=O), -C₁₋₆-alkyl substituted with one or more hydroxy groups, -(C₁₋₆-alkylene)-O-C₁₋₆-alkyl and -C(=O)-NH₂.

[0083] More preferably said cycloaliphatic radicals, heterocyclic rings, C₃₋₁₆cycloalkyl radicals, C₄₋₁₆cycloalkenyl radicals, C₄₋₁₆heterocycloalkyl radicals, or C₅₋₁₆heterocycloalkenyl radicals, may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), -CF₃, -C₂F₅, -C₃F₇, -C₄F₉, -CH₂Cl, -CHCl₂, -C₂H₄Cl, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, -CH₂-OH, -CH₂-CH₂-OH, -CH₂-CH₂-CH₂-OH, -O-CH₂-O-CH₃, -O-CH₂-CH₂-O-CH₃, -O-CH₂-O-C₂H₅, -C(OCH₃)(C₂H₅)₂, -C(OCH₃)(CH₃)₂, -O-CH₃, -O-C₂H₅, -O-CH₂-CH₂-CH₃, -O-CH(CH₃)₂, -O-CH₂-CH₂-CH₂-CH₃, -O-C(CH₃)₃, -S-CH₃, -S-C₂H₅, -S-CH₂-CH₂-CH₃, -S-CH(CH₃)₂, -S-CH₂-CH₂-CH₂-CH₃, -S-C(CH₃)₃, -C(=O)-OH, -C(=O)-O-CH₃, -C(=O)-O-C₂H₅, -C(=O)-O-C₃H₇, -C(=O)-O-C(CH₃)₃, -O-C(=O)-CH₃, -O-C(=O)-C₂H₅, -O-C(=O)-CH(CH₃)₂, -O-C(=O)-CH₂-CH₂-CH₃, -O-C(=O)-C(CH₃)₃, F, Cl, Br, I, -CN, -OCF₃, -O-C₂F₅, -O-C₃F₇, -O-C₄F₉, -SCF₃, -SCF₂H, -SCFH₂, -OH, -SH, -SO₃H, -NH-C(=O)-CH₃, -NH-C(=O)-C₂H₅, -NH-C(=O)-C(CH₃)₃, -NO₂, -CHO, -C(=O)-CH₃, -C(=O)-C₂H₅, -C(=O)-C(CH₃)₃, -C(=O)-CF₃, -C(=O)-C₂F₅, -C(=O)-C₃F₇, -C(=S)-NH-CH₃, -C(=S)-NH-C₂H₅, -CF₂H, -CFH₂, -C(=O)-NH₂, -C(=O)-NH-CH₃, -C(=O)-NH-C₂H₅, -C(=O)-NH-C₃H₇, -C(=O)-N(CH₃)₂, -C(=O)-N(C₂H₅)₂, -C(=O)-NH-NH-CH₃, -C(=O)-NH-NH-C₂H₅, -C(=O)-NH-NH₂, -C(=O)-NH-N(CH₃)₂, -S(=O)-CH₃, -S(=O)-C₂H₅, -S(=O)-C₃H₇, -S(=O)₂-CH₃, -S(=O)₂-C₂H₅, -S(=O)₂-C₃H₇, -S(=O)₂-phenyl, -NH₂, -NH-CH₃, -NH-C₂H₅, -N(CH₃)₂, -N(C₂H₅)₂, -CH₂-N(CH₃)₂, -(CH₂)-morpholinyl, -(CH₂)-piperidinyl, -(CH₂)-piperazinyl, -(CH₂)-N(C₂H₅)₂, -CH₂-N(C₃H₇)₂, -CH₂-N(C₄H₉)₂, -CH₂, -N(CH₃)(C₂H₅), -S(=O)-NH₂, -S(=O)₂-NH-CH₃, -S(=O)₂-NH-phenyl, -NH-S(=O)₂-CH₃, -O-Benzyl, -O-Phenyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidinyl, piperidinyl, phenyl, thiophenyl, phenoxy and benzyl, whereby said thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl.

[0084] If one or more of the residues R¹ to R²² represents or comprises a cycloaliphatic radical, preferably a C₃₋₁₆cycloaliphatic radical, which contains one or more heteroatoms as ring members, unless defined otherwise, each of these heteroatoms may preferably be selected from the group consisting of nitrogen, oxygen and sulfur. More preferably a cycloaliphatic group may optionally contain 1, 2, 3 or 4 heteroatom(s) independently selected from the group consisting of N, O and S as ring members.

[0085] Suitable saturated or unsaturated, optionally at least one heteroatom as ring member containing cycloaliphatic radicals may preferably be selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-

dihydrofuran-yl, (2,5)-dihydrothiophen-yl, (2,3)-dihydrofuran-yl, (2,3)-dihydrofuran-yl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyran-yl, tetrahydrothiopyran-yl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyran-yl, (1,2,3,6)-tetrahydropyridin-yl, (1,2,3,4)-tetrahydropyridin-yl, (1,2,5,6)-tetrahydropyridin-yl, [1,3]-oxazin-yl, hexahydropyrimidin-yl, (5,6)-dihydro-4H-pyrimidin-yl, oxazolidin-yl, (1,3)-dioxan-yl, (1,4)-dioxan-yl and (1,3)-dioxolan-yl.

[0086] Suitable saturated or unsaturated, optionally at least one heteroatom as ring member containing cycloaliphatic radicals which are condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system may preferably be selected from the group consisting of indolin-yl, isoindolin-yl, decahydronaphth-yl, (1,2,3,4)-tetrahydroquinolin-yl, (1,2,3,4)-tetrahydroisoquinolin-yl, (1,2,3,4)-tetrahydronaphth-yl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolizin-yl, (1,2,3,5,6,8a)-hexahydro-indolizin-yl, decahydroquinolin-yl, dodecahydro-carbazol-yl, 9H-carbazol-yl, decahydroisoquinolin-yl, (6,7)-dihydro-4H-thieno[3,2-c]pyridin-yl, (2,3)-dihydro-1H-benzo[de]isoquinolin-yl and (1,2,3,4)-tetrahydroquinoxalin-yl.

[0087] Preferably a cycloaliphatic radical, a C₁₋₆ cycloalkyl radical, a C₄₋₆ cycloalkenyl radical, a C₄₋₆ heterocycloalkyl radical or a C₅₋₁₆ heterocycloalkenyl radical may be bridged by 1, 2 or 3 unsubstituted or at least mono-substituted alkylene group(s).

[0088] Suitable saturated or unsaturated, optionally at least one heteroatom as ring member containing cycloaliphatic radicals which are bridged by at least one unsubstituted or at least mono-substituted alkylene group may preferably be selected from the group consisting of adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl and 8-aza-bicyclo[3.2.1]octyl.

[0089] A suitable saturated or unsaturated, optionally at least one heteroatom as ring member containing cycloaliphatic radical which together with a saturated or unsaturated, unsubstituted or at least mono-substituted cycloaliphatic radical forms a spirocyclic residue via a common ring atom is 8-aza-spiro[4.5]decanyl.

[0090] A mono- or polycyclic ring system according to the present invention—if not defined otherwise—means a mono- or polycyclic hydrocarbon ring system, preferably a mono- or bicyclic ring system, that may be saturated, unsaturated or aromatic. Each of its different rings may show a different degree of saturation, i.e. they may be saturated, unsaturated or aromatic. Optionally each of the rings of the mono- or bicyclic ring system may contain one or more, preferably 1, 2 or 3, heteroatom(s) as ring member(s), which may be identical or different and which can preferably be selected from the group consisting of nitrogen, oxygen and sulfur. The rings of the mono- or bicyclic ring system are preferably 5-, 6- or 7-membered.

[0091] The term “condensed” according to the present invention means that a ring or ring system is attached to another ring or ring system, whereby the terms “annulated” or “annelated” are also used by those skilled in the art to designate this kind of attachment.

[0092] If one or more of the residues R¹ to R²² comprises a mono- or polycyclic ring system, which may be substi-

tuted, unless defined otherwise, preferably said mono- or polycyclic ring system may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —C₁₋₆-perfluoroalkyl, —C₁₋₆-alkyl, —C₁₋₆-alkyl substituted with one or more hydroxy groups, —C₁₋₆-alkyl substituted with one or more chlorine atoms, —C₁₋₆-alkyl substituted with one or more methoxy and/or ethoxy groups, —O—C₁₋₆-alkyl, —O—C₁₋₆-alkyl substituted with one or more methoxy and/or ethoxy groups, —S—C₁₋₆-alkyl, —C(=O)—OH, —C(=O)—O—C₁₋₆-alkyl, —O—C(=O)—C₁₋₆-alkyl, F, Cl, Br, I, —CN, —OCF₃, —O—C₂F₅, —O—C₃F₇, —O—C₄F₉, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —SO₃H, —NH—C(=O)—C₁₋₆-alkyl, —N(C₁₋₆-alkyl)—C(=O)—C₁₋₆-alkyl, —NO₂, —CHO, —C(=O)—C₁₋₆-alkyl, —C(=O)—C₁₋₆-perfluoroalkyl, —C(=S)—NH—C₁₋₆-alkyl, —CF₂H, —CFH₂, —C(=C)—NR^AR^B, —C(=O)—NH—NR^CR^D, —S(=O)—C₁₋₆-alkyl, —S(=C)₂—C₁₋₆-alkyl, —S(=O)₂-phenyl, —(C₁₋₅-alkylene)—S—C₁₋₆-alkyl, —(C₁₋₅-alkylene)—S(=O)—C₁₋₆-alkyl, —(C₁₋₅-alkylene)—S(=O)₂—C₁₋₆-alkyl, —NR^ER^F, —(C₁₋₅-alkylene)—NR^ER^F, —S(=O)—NH₂, —S(=O)₂—NH—C₁₋₆-alkyl, —S(=O)₂—NH-phenyl, —NH—S(=O)₂—C₁₋₆-alkyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidin-yl, piperidin-yl, phenyl, thiophen-yl, phenoxy and benzyl;

[0093] whereby in each case the cyclic moieties cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidin-yl, piperidin-yl, phenyl, thiophen-yl, phenoxy and benzyl can optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of F, Cl, Br, I, —OH, —CF₃, —CN, —NO₂, —C₁₋₆-alkyl, —O—C₁₋₆-alkyl, —O—CF₃ and —S—CF₃ and

[0094] whereby R^A, R^B, R^E and R^F, independently of one another, represent hydrogen or —C₁₋₆-alkyl or R^A and R^B in each case together with the bridging nitrogen atom form a radical selected from the group consisting of pyrrolidin-yl, imidazolidin-yl, piperazin-yl, piperidin-yl, thiomorpholin-yl, morpholin-yl, azepan-yl and diazepan-yl which may be at least mono-substituted with one or more identical or different C₁₋₆-alkyl radicals

[0095] and whereby R^C and R^D, independently of one another, represent hydrogen, —C₁₋₆-alkyl, —C(=O)—O—C₁₋₆-alkyl, C₃₋₈-cycloalkyl, —(C₁₋₅-alkylene)—C₃₋₈-cycloalkyl, —(C₁₋₆-alkylene)—O—C₁₋₆-alkyl or —C₁₋₆-alkyl substituted with one or more hydroxy groups or R^C and R^D in each case together with the bridging nitrogen atom form a radical selected from the group consisting of pyrrolidin-yl, imidazolidin-yl, piperazin-yl, piperidin-yl, thiomorpholin-yl, morpholin-yl, azepan-yl and diazepan-yl which may be at least mono-substituted with one or more substituents independently selected from the group consisting —C₁₋₆-alkyl, —C(=O)—C₁₋₆-alkyl, —C(=O)—O—C₁₋₆-alkyl, —C(=O)—NH—C₁₋₆-alkyl, —C(=S)—NH—C₁₋₆-alkyl, oxo (=O), —C₁₋₆-alkyl substituted with one or more hydroxy groups, —(C₁₋₆-alkylene)—O—C₁₋₆-alkyl and —C(=O)—NH₂.

[0096] More preferably said mono- or polycyclic ring system may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, —C₂F₅, —C₃F₇, —C₄F₉, —CH₂Cl, —CHCl₂, —C₂H₄Cl, methyl, ethyl,

n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —CH₂—OH, —CH₂—CH₂—OH, —CH₂—CH₂—CH₂—OH, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —O—CH₂—O—C₃H₇, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C₃H₇, —C(=O)—O—C(CH₃)₃, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —O—C(=O)—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —OC₂F₅, —O—C₃F₇, —O—C₄F₉, —SCF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —SO₃H, —NH—C(=O)—CH₃, —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—CF₃, —C(=O)—C₂F₅, —C(=O)—C₃F₇, —C(=S)—NH—CH₃, —C(=S)—NH—C₂H₅, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —C(=O)—NH—NH—CH₃, —C(=O)—NH—NH—C₂H₅, —C(=O)—NH—NH₂, —C(=O)—NH—N(CH₃)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —S(=O)₂-phenyl, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CH₂—N(CH₃)₂, —(CH₂)-morpholinyl, —(CH₂)-piperidinyl, —(CH₂)-piperazinyl, —(CH₂)-N(C₂H₅)₂, —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅), —S(=O)—NH₂, —S(=O)₂—NH—CH₃, —S(=O)₂—NH—C₂H₅, —NH—S(=O)—C₂H₅, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, pyrrolidinyl, piperidinyl, phenyl, thiophenyl, phenoxy and benzyl, whereby said thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl.

[0097] If one or more of the residues R⁴ to R²² represent or comprise a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical, preferably a C₁₋₆aliphatic radical, said aliphatic radical may be linear or branched.

[0098] Preferably aliphatic radicals, C₁₋₆-alkyl radicals, C₂₋₁₆alkenyl radical and C₂₋₁₆alkynyl radicals, unless defined otherwise, may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituents independently selected from the group consisting of —OH, F, Cl, Br, I, —O—C₁₋₆-alkyl, —OCF₃, —O—C₂F₅, —O—C₃F₇, —O—C₄F₉, —CF₃, —C₂F₅, —C₃F₇, —C₄F₉, —NH₂, —NH—C₁₋₆-alkyl, —N(C₁₋₆-alkyl)₂, —C(=O)—OH, —C(=O)—O—C₁₋₆-alkyl, —C(=O)—NH₂, —C(=O)—NH—C₁₋₆-alkyl, —C(=O)—N(C₁₋₆-alkyl)₂, —CN, —NO₂, —S(=O)—NH₂, —CHO, —C(=O)—C₁₋₆-alkyl, —S(=O)—C₁₋₆-alkyl, —S(=O)₂—C₁₋₆-alkyl, —NH—S(=O)—C₁₋₆-alkyl, —NH—C(=O)—O—C₁₋₆-alkyl and —NH—C(=O)—C₁₋₆-alkyl.

[0099] More preferably aliphatic radicals, C₁₋₆-alkyl radicals, C₂₋₁₆alkenyl radical and C₂₋₁₆alkynyl radicals may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituents independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅,

—O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN, —NO₂, —NH—C(=O)—CH₃, —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃, —NH—C(=O)—O—CH₃, —NH—C(=O)—O—C₂H₅, —NH—C(=O)—O—C(CH₃)₃, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C(CH₃)₃, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —C(=O)—CH₃, —C(=O)—C₂H₅ and —C(=O)—C(CH₃)₃.

[0100] Suitable alkyl radicals, preferably C₁₋₆-alkyl radicals, are selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl, 2-(6-methyl)-octyl, n-nonyl, n-decyl, n-undecyl, n-dodecyl, n-tridecyl, n-tetradecyl, n-pentadecyl and n-hexadecyl

[0101] Suitable at least mono-substituted alkyl radicals are selected from the group consisting of —CF₃, —CH₂F, —CF₂H, —CH₂—O—CH₃, —C₂F₅, —CH₂—CH₂—F, —CH₂—CN, —CH₂—OH, —CH₂—CH₂—CN, —CH₂—CH₂—OH, —CH₂—CH₂—OCH₃, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, —CH₂—CH₂—CH₂—O—CH₃, —CH₂—NH₂, —CH₂—N(CH₃)₂, —CH₂—N(C₂H₅)₂, —CH₂—CH—NH₂, —CH₂—CH₂—N(CH₃)₂, —CH₂—CH₂—N(C₂H₅)₂, —CH₂—CH₂—CH₂—NH₂, —CH₂—CH₂—CH₂—N(CH₃)₂ and —CH₂—CH₂—CH₂—N(C₂H₅)₂.

[0102] An alkenyl radical according to the present invention comprises at least one carbon-carbon double bond. Suitable alkenyl radicals, preferably C₂₋₁₆ alkenyl radicals, are selected from the group consisting of vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, n-heptenyl, n-octenyl, n-nonenyl, n-decyl, n-undecenyl, n-dodecenyl, n-tridecenyl, n-tetradecenyl, n-pentadecenyl and n-hexadecenyl.

[0103] An alkynyl radical comprises at least one carbon-carbon triple bond. Suitable alkynyl radicals, preferably C₂₋₁₆alkynyl radicals, are selected from the group consisting of ethynyl, propynyl, n-butylnyl, n-pentynyl, n-hexynyl, n-octynyl, n-nonylnyl, n-decynyl, n-undecynyl, n-dodecynyl, n-tridecynyl, n-tetradecynyl, n-pentadecynyl and n-hexadecynyl.

[0104] If any of the substituents represents an alkylene group, an alkenylene group or an alkynylene group, which may be substituted, said alkylene group, alkenylene group or alkynylene group may—if not defined otherwise—be unsubstituted or substituted by one or more substituents, preferably unsubstituted or substituted with 1, 2 or 3 substituent(s). Said substituent(s) may preferably be selected independently from the group consisting of —O—C₁₋₆-alkyl, —S—C₁₋₆-alkyl, —F, Cl, Br, I, —CN, —CF₃, —OCF₃, —SCF₃, —OH, —SH, —SO₃H, —NH₂, —NH(C₁₋₆-alkyl), —N(C₁₋₆-alkyl)₂ and phenyl. More preferably said substituent(s) may be selected from the group consisting of —F, Cl, Br, I, —CN, —CF₃, —OCF₃, —SCF₃, —OH, —SH, —SO₃H, —NH₂, —NH—CH₃, —N(CH₃)₂, —O—CH₃ and —O—C₂H₅. An alkenylene group comprises

at least one carbon-carbon double bond, an alkinylene group comprises at least one carbon-carbon triple bond.

[0105] Suitable alkylene groups, preferably C₁₋₅-alkylene groups, include —(CH₂)—, —CH(CH₃)—, —CH(phenyl), —(CH₂)₂—, —(CH₂)₃—, —(CH₂)₄—, —(CH₂)₅ and —(CH₂)₆—, suitable alkenylene groups, preferably C₂₋₅-alkenylene groups, include —CH=CH—, —CH₂—CH—CH— and —CH—CH—CH₂— and suitable alkinylene groups, preferably C₂₋₅-alkinylene groups, include —C≡C—, —CH₂—C≡C— and —C≡C—CH₂—.

[0106] Preferred are 4-substituted pyrazoline compounds of general formula I given above, wherein

[0107] x is O or S;

[0108] R¹ and R², independently of one another, in each case represent an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

[0109] an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

[0110] an unsubstituted or at least mono-substituted C₃₋₁₆cycloalkyl radical or C₄₋₁₆cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅alkylene group;

[0111] or an unsubstituted or at least mono-substituted C₄₋₁₆heterocycloalkyl radical or C₅₋₁₆heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅alkylene group;

[0112] R³ represents an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

[0113] an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

[0114] an unsubstituted or at least mono-substituted C₃₋₁₆cycloalkyl radical or C₄₋₁₆cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅alkylene group;

[0115] an unsubstituted or at least mono-substituted C₄₋₁₆heterocycloalkyl radical or C₅₋₁₆heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅alkylene group;

[0116] an unsubstituted or at least mono-substituted C₃₋₁₆cycloalkyl radical, C₄₋₁₆cycloalkenyl radical, C₄₋₁₆heterocycloalkyl radical or C₅₋₁₆heterocycloalkenyl radical which together with an unsubstituted or at least mono-substituted C₃₋₁₆cycloalkyl radical, C₄₋₁₆cycloalkenyl radical, C₄₋₁₆heterocycloalkyl radical or C₅₋₁₆heterocycloalkenyl radical forms an unsubstituted or at least mono-substituted spirocyclic residue via a common ring atom;

[0117] ^a —O—R⁶ moiety; a —NR⁷R⁸ moiety or a —NR—O—R¹⁰ moiety;

[0118] R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

[0119] an unsubstituted or at least mono-substituted C₁₋₁₆alkyl radical, C₂₋₁₆alkenyl radical or C₂₋₁₆alkinyl radical;

[0120] an unsubstituted or at least mono-substituted C₃₋₁₆cycloalkyl radical or C₄₋₁₆cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅alkylene group, C₂₋₅alkenylene group or C₂₋₅alkinylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅alkylene group;

[0121] an unsubstituted or at least mono-substituted C₄₋₁₆heterocycloalkyl radical or C₅₋₁₆heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅alkylene group, C₂₋₅alkenylene group or C₂₋₅alkinylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅alkylene group;

[0122] an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅alkylene group, C₂₋₅alkenylene group or C₂₋₅alkinylene group;

[0123] or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅alkylene group, C₂₋₅alkenylene group or C₂₋₅alkinylene group;

[0124] a —O—R¹¹ moiety; a —S—R¹² moiety; a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;

[0125] R⁵ represents H; F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

[0126] an unsubstituted or at least mono-substituted C₁₋₆alkyl radical, C₂₋₁₆alkenyl radical or C₂₋₁₆alkinyl radical;

[0127] an unsubstituted or at least mono-substituted C₃₋₁₆cycloalkyl radical or C₄₋₁₆cycloalkenyl radical, which in each case may be condensed with an unsubsti-

- tuted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group;
- [0128] an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group;
- [0129] an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0130] or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0131] $—O—R^{11}$ moiety; a $—S—R^{12}$ moiety; a $—NH—R^{13}$ moiety or a $—NR^{14}R^{15}$ moiety;
- [0132] or R^4 and R^5 together with the bridging carbon atom form an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical;
- [0133] R^6 represents a hydrogen atom;
- [0134] an unsubstituted or at least mono-substituted C_{1-16} alkyl radical, C_{2-16} alkenyl radical or C_{2-16} alkinyl radical;
- [0135] an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0136] an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0137] an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0138] an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0139] a $—P(=O)(OR^{16})_2$ moiety; a $—C(=O)—OR^{17}$ moiety; a $—C(=O)—NH—R^{18}$ moiety or a $—C(=O)—R^{19}$ moiety;
- [0140] R^7 and R^8 , independently of one another, in each case represent a hydrogen atom;
- [0141] an unsubstituted or at least mono-substituted C_{1-16} alkyl radical, C_{2-16} alkenyl radical or C_{2-16} alkinyl radical;
- [0142] an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0143] an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0144] an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical, C_{4-16} cycloalkenyl radical, C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical which together with an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical, C_{4-16} cycloalkenyl radical, C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical forms an unsubstituted or at least mono-substituted spirocyclic residue via a common ring atom;
- [0145] an unsubstituted or at least mono-substituted 6 or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0146] an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- [0147] a $—P(=O)(OR^{16})_2$ moiety; a $—C(=O)—OR^{17}$ moiety; a $—C(=O)—NH—R^{18}$ moiety; a $—C(=O)—R^{19}$ moiety; a $—S(=O)_2—R^{20}$ moiety; or a $—NR^{21}R^{22}$ moiety;

- [0148] R^9 represents a hydrogen atom or an unsubstituted or at least mono-substituted C_{1-6} alkyl radical, C_{2-6} alkenyl radical or C_{2-6} alkinyl radical;
- [0149] R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{20} , independently of one another, in each case represent an unsubstituted or at least mono-substituted C_{1-6} alkyl radical, C_{2-6} alkenyl radical or C_{2-6} alkinyl radical;
- [0150] an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group- and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- [0151] an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via-an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group; an unsubstituted or at least mono-substituted 6 or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- [0152] or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- [0153] R^{16} , R^{17} , R^{18} and R^{19} , independently of one another, in each case represent an unsubstituted or at least mono-substituted C_{1-6} alkyl radical, C_{2-6} alkenyl radical or C_{2-6} alkinyl radical;
- [0154] or an unsubstituted or at least mono-substituted 6 or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- [0155] or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- and
- [0156] R^{21} and R^{22} , independently of one another, in each case represent a hydrogen atom;
- [0157] an unsubstituted or at least mono-substituted C_{1-6} alkyl radical, C_{2-6} alkenyl radical or C_{2-6} alkinyl radical;
- [0158] an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- [0159] an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- [0160] an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical, C_{4-16} cycloalkenyl radical, C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical which together with an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical, C_{4-16} cycloalkenyl radical, C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical forms an unsubstituted or at least mono-substituted spirocyclic residue via a common ring atom;
- [0161] an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- [0162] or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkinylene group;
- whereby
- [0163] the rings of the aforementioned ring system are in each case independently of one another 5- 6- or 7-membered and may in each case independently of one another optionally contain 1, 2 or 3 heteroatom(s) independently selected from the group consisting of nitrogen, oxygen and sulfur;
- [0164] the aforementioned heteroaryl radicals in each case optionally contain 1, 2, 3 or 4 heteroatom(s) independently selected from the group consisting of nitrogen, oxygen and sulfur as ring member(s);
- [0165] the aforementioned heterocycloalkyl radicals and heterocycloalkenyl radicals in each case optionally contain 1, 2, 3 or 4 heteroatom(s) independently selected from the group consisting of nitrogen, oxygen and sulfur as ring member(s);
- [0166] optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

[0167] Also preferred are 4-substituted pyrazoline compounds of general formula I given above, wherein R¹ and R², independently of one another, in each case represent a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furan), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furan, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl, imidazo[2,1-b]thiazolyl, 2H-chromenyl, pyran, indazolyl, quinazolinyl, [1,3]-benzodioxolyl, [1,4]-benzodioxanyl, [1,2,3,4]-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, [1,2,3,4]-tetrahydroquinolinyl, [1,2,3,4]-tetrahydroisoquinolinyl, [1,2,3,4]-tetrahydroquinazolinyl and [3,4]-dihydro-2H-benzo[1,4]oxazinyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the aromatic or heteroaromatic part of the aforementioned radicals and may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, —CH₂—Cl, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, phenoxy and thiophenyl, whereby the thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl;

[0168] or a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuran, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuran, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuran, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyran, tetrahydropyran, (3,4)-dihydro-2H-pyran, (3,4)-dihydro-2H-thiopyran, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl,

(6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxazolinyl, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl and norbornenyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the (hetero)cycloaliphatic part of the aforementioned radicals and may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0169] and X and R³ to R² have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0170] Preference is also given to 4-substituted pyrazoline compounds of general formula I given above, wherein R³ represents a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuran, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuran, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuran, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyran, tetrahydropyran, (3,4)-dihydro-2H-pyran, (3,4)-dihydro-2H-thiopyran, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxazolinyl, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl,

n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, cyclopentyl, —O—Benzyl, benzyl, cyclohexyl, pyrrolidinyl and piperidinyl;

[0171] _a —O—R⁶ moiety; a —NR⁷R⁸ moiety or a —NR—O—R¹⁰ moiety;

[0172] and X, R¹, R² and R⁴ to R²² have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0173] Also preferred are 4-substituted pyrazoline compounds of general formula I given above, wherein R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

[0174] a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl and 4-octyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

[0175] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH—group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—

CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0176] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl and diazepamyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thio (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0177] a —O—R¹¹ moiety; a —S—R¹² moiety; a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;

[0178] and X, R¹, R², R³ and R⁵ to R²² have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0179] Preference is also given to 4-substituted pyrazoline compounds of general formula I, wherein

[0180] R⁵ represents H, F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

[0181] a radical selected from the group consisting of methyl, —CF₃, —CH₂F, —CF₂H, —C₂F₅, ethyl, —CH₂—CN, —CH₂—OH, n-propyl, isopropyl, —CH₂—CH₂—CN, —CH₂—CH₂—OH, n-butyl, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;

[0182] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclo-

heptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl and diazepanyl,

[0183] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl) and pyrrolyl, which may be bonded via a $-(CH_2)-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, F, Cl and Br;

[0184] a $-O-R^{11}$ moiety; a $-S-R^{12}$ moiety, a $-NH-R^{13}$ moiety or a $-NR^{14}R^{15}$ moiety;

[0185] and X, R^1 to R^4 and R^6 to R^{22} have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0186] Preference is also given to 4-substituted pyrazoline compounds of general formula I, wherein

[0187] R^4 and R^5 together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, and cyclooctenyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0188] and X, R^1 to R^3 and R^5 to R^{22} have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0189] Also preferred are 4-substituted pyrazoline compounds of general formula I given above, wherein R^6

represents a hydrogen atom; a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of $-OH$, F, Cl, Br, I, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$, $-NO$, $-NH-C(=O)-CH_3$, $-NH-C(=O)-C_2H_5$, $-NH-C(=O)-C(CH_3)_3$, $-NH-C(=O)-O-CH_3$, $-NH-C(=O)-O-C_2H_5$, $-NH-C(=O)-O-C(CH_3)_3$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C(CH_3)_3$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$ and $-C(=O)-C(CH_3)_3$;

[0190] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0191] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$,

—O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —O—C(=O)—N(CH₃)₂, —O—C(=O)—N(C₂H₅)₂, —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅) and —(CH₂)-morpholinyl;

[0192] a —P(=O)(OR¹⁶)₂ moiety; a —C(=O)—OR¹⁷ moiety; a —C(=O)—NH—R¹⁸ moiety or a —C(=O)—R¹⁹ moiety;

[0193] and X, R¹ to R⁵ and R⁷ to R²² have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0194] Preference is also given to 4-substituted pyrazoline compounds of general formula I given above, wherein R⁷ and R⁸, independently of another, in each case represent a hydrogen atom;

[0195] a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butenyl, n-pentynyl and n-hexynyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

[0196] a radical selected from the group consisting of (1,2,3,4)-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranlyl, tetrahydropyranlyl, (3,4)-dihydro-2H-

pyranlyl, (3,4)-dihydro-2H-thiopyranlyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolinyl, (1,2,3,5,6,8a)-hexahydro-indolizinyl, decahydroquinolinyl, dodecahydrocarbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxalinyl, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH-group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thio (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—Benzyl, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

[0197] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH-group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—

C_2H_5 , $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$,
 $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-$
 CH_3 , $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0198] a $-P(=O)(OR^{16})_2$ moiety; a $-C(=O)-OR^{17}$
 moiety; a $-C(=O)-NH-R^{18}$ moiety; a $-C(=O)-R^{19}$
 moiety; a $-S(=O)R^{20}$ moiety; or a $-NR^{21}R^{22}$ moiety;

[0199] and X, R^1 to R^6 and R^9 to R^{22} have the meaning
 given above, optionally in form of one of the stereoisom-
 ers, preferably enantiomers or diastereomers, a race-
 mate or in form of a mixture of at least two of the
 stereoisomers, preferably enantiomers and/or diastere-
 omers, in any mixing ratio, or a corresponding N-oxide
 thereof, or a corresponding salt thereof, or a correspond-
 ing solvate thereof.

[0200] Also preferred are 4-substituted pyrazoline com-
 pounds of general formula I given above, wherein R^9
 represents hydrogen or an alkyl radical selected from the
 group consisting of methyl, ethyl and n-propyl;

[0201] and X, R^1 to R^8 and R^{10} to R^{22} have the meaning
 given above, optionally in form of one of the stereoisom-
 ers, preferably enantiomers or diastereomers, a race-
 mate or in form of a mixture of at least two of the
 stereoisomers, preferably enantiomers and/or diastere-
 omers, in any mixing ratio, or a corresponding N-oxide
 thereof, or a corresponding salt thereof, or a correspond-
 ing solvate thereof.

[0202] Preference is also given to 4-substituted pyrazoline
 compounds of general formula I, wherein R^{10} , R^{11} , R^{12} , R^{13} ,
 R^{14} , R^{15} and R^{20} , independently of another, in each case
 represent a radical selected from the group consisting of
 methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-
 butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl,
 n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl,
 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6methyl)-
 heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-meth-
 yl)-hexyl, 2-(7-methyl)-octyl; 2-(6methyl)-octyl, vinyl,
 n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propin-
 yl, n-butenyl, n-pentynyl and n-hexynyl, which may option-
 ally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s)
 independently selected from the group consisting of $-OH$,
 F , Cl , Br , I , $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-$
 CH_3 , $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$,
 $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$,
 $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$ and $-NO_2$;

[0203] a radical selected from the group consisting of
 cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclo-
 heptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopente-
 nyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidi-
 nyl, piperidinyl, piperazinyl, homopiperazinyl,
 morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thio-
 morpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahy-
 drothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and
 diazepanyl, which may be bonded via a $-(CH_2)-$,
 $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or
 $-CH=CH-$ group and/or may optionally be substituted
 with 1, 2, 3, 4 or 5 substituent(s) independently selected
 from the group consisting of oxo ($=O$), thioxo ($=S$),
 $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobu-
 tyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl,
 $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$,
 $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$,

$-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-$
 CH_2-CH_3 , $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-$
 CH_2-CH_3 , $-S-C(CH_3)_3$, F , Cl , Br , I , $-CN$, $-OCF_3$,
 $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$,
 $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$,
 $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-$
 NH_2 , $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$,
 $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$,
 $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-$
 C_2H_5 , $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$,
 $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-$
 CH_3 , $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0204] or a radical selected from the group consisting of
 phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl
 (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl,
 isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thia-
 diazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which
 may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$,
 $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH-CH-$ group and/or
 may optionally be substituted with 1, 2, 3, 4 or 5 sub-
 stituent(s) independently selected from the group consist-
 ing of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl,
 isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl,
 $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$,
 $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$,
 $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-$
 CH_2-CH_3 , $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-$
 CH_2-CH_3 , $-S-C(CH_3)_3$, F , Cl , Br , I , $-CN$, $-OCF_3$,
 $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$,
 $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$,
 $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-$
 NH_2 , $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$,
 $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$,
 $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-$
 C_2H_5 , $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$,
 $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-$
 CH_3 , $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0205] and X, R^1 to R^9 , R^{16} to R^{19} , R^{21} and R^{22} have the
 meaning given above, optionally in form of one of the
 stereoisomers, preferably enantiomers or diastereomers, a
 racemate or in form of a mixture of at least two of the
 stereoisomers, preferably enantiomers and/or diastere-
 omers, in any mixing ratio, or a corresponding N-oxide
 thereof, or a corresponding salt thereof, or a correspond-
 ing solvate thereof.

[0206] Also preferred are 4-substituted pyrazoline com-
 pounds of general formula I given above, wherein R^{16} , R^{17} ,
 R^{18} and R^{19} , independently of one another, in each case
 represent a radical selected from the group consisting of
 methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-
 butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl,
 n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl,
 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, vinyl, n-prope-
 nyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl,
 n-butenyl, n-pentynyl and n-hexynyl, which may option-
 ally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s)
 independently selected from the group consisting of NH_2 ,
 $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$,
 $-NH-C(=O)-CH_3$, $-NH-C(=O)-C_2H_5$, $-NH-$
 $C(=O)-C(CH_3)_3$, $-NH-C(=O)-O-CH_3$, $-NH-$
 $C(=O)-O-C_2H_5$, $-NH-C(=O)-O-C(CH_3)_3$,
 $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$,
 $-C(=O)-NH-C(CH_3)_3$, $-C(=O)-N(CH_3)_2$,

—C(=O)—N(C₂H₅)₂, —OH, —C(=O)—OH,
—C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—
O—C(CH₃)₃, —C(=O)—CH₃, —C(=O)—C₂H₅ and
—C(=O)—C(CH₃)₃;

[0207] or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —CH₂—N(CH₃)₂, —(CH₂)—N(C₂H₅)₂, —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅) and —(CH₂)—morpholinyl;

[0208] and X, R¹ to R¹⁵ and R²⁰ to R²² have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0209] Also preferred are 4-substituted pyrazoline compounds of general formula I given above, wherein R²¹ and R²², independently of another, in each case represent hydrogen;

[0210] a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentynyl and n-hexynyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

[0211] a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrothiopyranyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydropyranyl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyranyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolizinyl, (1,2,3,5,6,8a)-hexahydro-indolizinyl, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxalinyl, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —O—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —O—CH₂—O—C(CH₃)₃, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, B, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

[0212] or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consist-

ing of $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F, Cl, Br, I, $-\text{CN}$, $-\text{OCF}_3$, $-\text{SCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(=\text{O})_2-\text{CH}_3$, $-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$ and $-\text{N}(\text{C}_2\text{H}_5)_2$;

[0213] and X and R¹ to R²⁰ have the meaning given above, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof.

[0214] Also preferred are 4-substituted pyrazoline compounds of general formula I given above, wherein

[0215] x is S or O;

[0216] R¹ and R², independently of one another, in each case represent a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furanlyl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3,1]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl, imidazo[2,1-b]thiazolyl, 2H-chromenyl, pyranlyl, indazolyl, quinazolinyll, [1,3]-benzodioxolyl, [1,4]-benzodioxanyl, [1,2,3,4]-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, [1,2,3,4]-tetrahydroquinolinyl, [1,2,3,4]-tetrahydroisoquinolinyl, [1,2,3,4]-tetrahydroquinazolinyl and [3,4]-dihydro-2H-benzo[1,4]oxazinyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the aromatic or heteroaromatic part of the aforementioned radicals and may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-\text{CF}_3$, $-\text{CH}_2-\text{Cl}$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F, Cl, Br, I, $-\text{CN}$, $-\text{OCF}_3$, $-\text{SCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(=\text{O})_2-\text{CH}_3$, $-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$ and $-\text{N}(\text{C}_2\text{H}_5)_2$;

$-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2-\text{N}(\text{C}_2\text{H}_5)_2$, phenoxy and thiophenyl, whereby the thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl;

[0217] or a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidinyll, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrofuranlyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydropyranlyl, (3,4)-dihydro-2H-pyranlyl, (3,4)-dihydro-2H-thiopyranlyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolizinyll, (1,2,3,5,6,8a)-hexahydro-indolizinyll, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxalinyll, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl and norbornenyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the (hetero)cycloaliphatic part of the aforementioned radicals and may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=\text{O}$), thioxo ($=\text{S}$), $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F, Cl, Br, I, $-\text{CN}$; $-\text{OCF}_3$, $-\text{SCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(=\text{O})_2-\text{CH}_3$, $-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$ and $-\text{N}(\text{C}_2\text{H}_5)_2$;

[0218] R³ represents a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidinyll, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-

dihydrofuranyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranyl, (2,3)-dihydrofuranyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydrothiopyranyl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyranyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydro-naphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzof[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxaliny, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—Benzyl, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

[0219] a —O—R⁶ moiety; a —NR⁷R⁸ moiety or a —NR⁹—O—R¹⁰ moiety;

[0220] R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

[0221] a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl and 4-octyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

[0222] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl

(thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0223] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranly, tetrahydrothiophenyl, azepanyl and diazepanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0224] a —O—R¹¹ moiety; a —S—R¹² moiety, a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;

[0225] R⁴ and R⁵ together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, and cyclooctenyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅,

—O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂,
 —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃,
 —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃,
 —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₂—CH₃,
 —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃,
 —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO,
 —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—
 C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂,
 —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅,
 —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂,
 —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—
 C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃,
 —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—
 CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0226] R⁵ represents H, F; Cl; Br; I; —CN; —NO₂; —NC;
 —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH;
 —C(=O)—OR¹⁷;

[0227] a radical selected from the group consisting of
 methyl, —CF₃, —CH₂F, —CF₂H, —C₂F₅, ethyl,
 —CH₂—CN, —CH₂—OH, n-propyl, isopropyl,
 —CH₂—CH₂—CN, —CH₂—CH₂—OH, n-butyl,
 —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH,
 isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pen-
 tyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;

[0228] a radical selected from the group consisting of
 cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclo-
 heptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopente-
 nyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidi-
 nyl, piperidinyl, piperazinyl, homopiperazinyl,
 morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thio-
 morpholinyl, pyrazolidinyl, tetrahydrofuranly, tetrahy-
 drothiophenyl, azepanyl and diazepanyl;

[0229] a radical selected from the group consisting of
 phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl
 (thiophenyl) and pyrrolyl, which may be bonded via a
 —(CH₂)—group and/or may optionally be substituted
 with 1, 2, 3, 4 or 5 substituent(s) independently selected
 from the group consisting of —CF₃, methyl, ethyl, n-pro-
 pyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl,
 n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, F,
 Cl and Br;

[0230] a —O—R¹¹ moiety; a —S—R¹² moiety, a —NH—
 R¹³ moiety or a —NR¹⁴R¹⁵ moiety;

[0231] R⁶ represents a hydrogen atom; a radical selected
 from the group consisting of methyl, ethyl, n-propyl,
 isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pen-
 tyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl,
 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl,
 2-octyl, 3-octyl, 4-octyl vinyl, n-propenyl, n-butenyl,
 n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butenyl,
 n-pentynyl and n-hexynyl, which may optionally be sub-
 stituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s)
 independently selected from the group consisting of
 —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅,
 —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂,
 —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃,
 —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂,
 —N(C₂H₅)₂, 13 CN, —NO, —NH—C(=O)—CH₃,
 —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃,
 —NH—C(=O)—O—CH₃, —NH—C(=O)—O—
 C₂H₅, —NH—C(=O)—O—C(CH₃)₃, —C(=O)—

NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—
 C(CH₃)₃, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂,
 —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—
 C₂H₅, —C(=O)—O—C(CH₃)₃, —C(=O)—CH₃,
 —C(=O)—C₂H₅ and —C(=O)—C(CH₃)₃;

[0232] a radical selected from the group consisting of
 cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cyclo-
 heptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopente-
 nyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidi-
 nyl, piperidinyl, piperazinyl, homopiperazinyl,
 morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thio-
 morpholinyl, pyrazolidinyl, tetrahydrofuranly, tetrahy-
 drothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and
 diazepanyl, which may be bonded via a —(CH₂)—,
 —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or
 —CH=CH—group and/or may optionally be substituted
 with 1, 2, 3, 4 or 5 substituent(s) independently selected
 from the group consisting of oxo (=O), thioxo (=S),
 —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobu-
 tyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl,
 —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃,
 —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃,
 —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—
 CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—
 CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃,
 —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂,
 —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅,
 —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—
 NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅,
 —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂,
 —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—
 C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃,
 —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—
 CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0233] a radical selected from the group consisting of
 phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl
 (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl,
 isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thadia-
 zolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which
 may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—,
 —(CH₂)—(CH₂)—(CH₂)— or —CH=CH—group and/
 or may optionally be substituted with 1, 2, 3, 4 or 5
 substituent(s) independently selected from the group con-
 sisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-bu-
 tyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl,
 n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—
 CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃,
 —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—
 CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—
 CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃,
 —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂,
 —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅,
 —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—
 NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅,
 —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂,
 —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—
 C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃,
 —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—
 CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂,
 —O—C(=O)—CH₃, —O—C(=O)—C₂H₅,
 —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—
 CH₂—CH₃, —CH₂—N(CH₃)₂, —(CH₂)—N(C₂H₅)₂,
 —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—
 N(CH₃)(C₂H₅) and —(CH₂)—morpholinyl;

[0234] a $-P(=O)(OR^{16})_2$ moiety; a $-C(=O)-OR^{17}$ moiety; a $-C(=O)-NH-R^{18}$ moiety or a $-C(=O)-R^{19}$ moiety;

[0235] R^7 and R^8 , independently of another, in each case represent a hydrogen atom;

[0236] a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of $-OH$, F , Cl , Br , I , $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$ and $-NO_2$;

[0237] a radical selected from the group consisting of (1,2,3,4)-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolindolyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrofuranlyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranlyl, tetrahydropyranlyl, (3,4)-dihydro-2H-pyranlyl, (3,4)-dihydro-2H-thiopyranlyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxaliny, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-O-CH_2-O-CH_3$, $-O-CH_2-CH_2-O-CH_3$, $-O-CH_2-O-C_2H_5$, $-C(OCH_3)(C_2H_5)_2$, $-C(OCH_3)(CH_3)_2$, $-S-CH_3$, $-S-C_2H_5$,

$-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F , Cl , Br , I , $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-O-Benzyl$, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

[0238] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F , Cl , Br , I , $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0239] a $-P(=O)(OR^{16})_2$ moiety; a $-C(=O)-OR^{17}$ moiety; a $-C(=O)-NH-R^{18}$ moiety; a $-C(=O)-R^{19}$ moiety; a $-S(=O)_2-R^{20}$ moiety; or a $-NR^2R^{22}$ moiety;

[0240] R^9 represents hydrogen or an alkyl radical selected from the group consisting of methyl, ethyl and n-propyl;

[0241] R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{20} , independently of another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of $-OH$, F , Cl , Br , I , $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$ and $-NO_2$;

[0242] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thio ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0243] or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl; ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0244] R^{16} , R^{17} , R^{18} and R^{19} , independently of one another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from

the group consisting of NH_2 , $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-NH-C(=O)-CH_3$, $-NH-C(=O)-C_2H_5$, $-NH-C(=O)-C(CH_3)_3$, $-NH-C(=O)-O-CH_3$, $-NH-C(=O)-O-C_2H_5$, $-NH-C(=O)-O-C(CH_3)_3$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C(CH_3)_3$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-OH$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$ and $-C(=O)-C(CH_3)_3$;

[0245] or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-O-C(=O)-CH_3$, $-O-C(=O)-C_2H_5$, $-O-C(=O)-CH(CH_3)_2$, $-O-C(=O)-CH_2-CH_2-CH_3$, $-CH_2-N(CH_3)_2$, $-(CH_2)-N(C_2H_5)_2$, $-CH_2-N(C_3H_7)_2$, $-CH_2-N(C_4H_9)_2$, $-CH_2-N(CH_3)(C_2H_5)$ and $-(CH_2)-n$ morpholinyl; R^{21} and R^{22} , independently of another, in each case represent hydrogen; a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of $-OH$, F, Cl, Br, I, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$ and $-NO_2$;

[0246] a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl

nyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranyl, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydropyranyl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyranyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydro-naphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolizinyll, (1,2,3,5,6,8a)-hexahydro-indolizinyll, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thienof[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxalinyll, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-O-CH_2-O-CH_3$, $-O-CH_2-CH_2-O-CH_3$, $-O-CH_2-O-C_2H_5$, $-C(OCH_3)(CH_3)_2$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

[0247] or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-$

CH_2-CH_3 , $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

[0248] optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

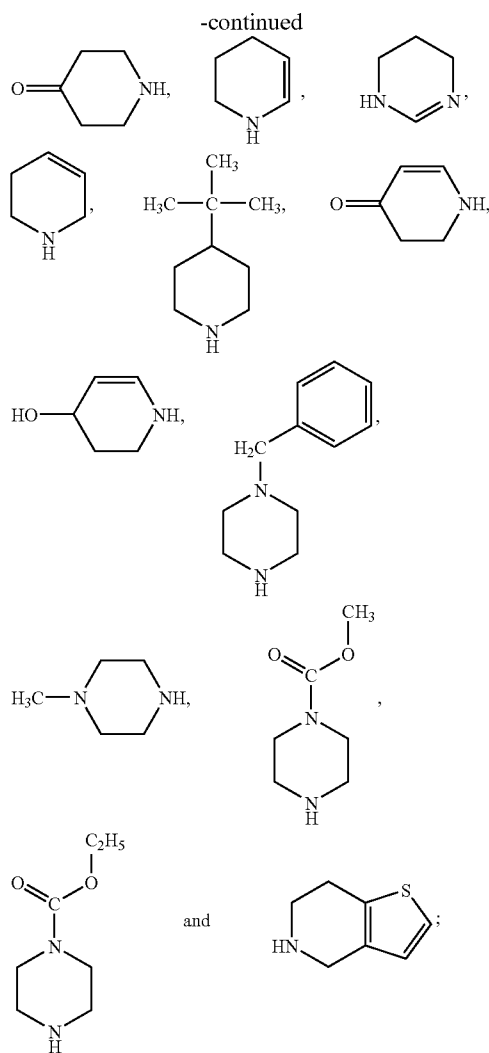
[0249] Particularly preferred are 4-substituted pyrazoline compounds of general formula I given above, wherein

[0250] X is O or S;

[0251] R^1 represents a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furanyl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl and imidazo[2,1-b]thiazolyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, $-CH_2-Cl$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-NO_2$, $-OH$, $-O-CH_3$, $-O-C_2H_5$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, phenoxy and thiophenyl, whereby the thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl;

[0252] or a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl and diazepanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$ and $-SCFH_2$;

[0253] R^2 represents a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furanyl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,



which is in each case bonded to the pyrazoline compound of general formula I in any position of the cyclic part of the aforementioned radicals including the NH-groups, preferably said radicals are bonded to the pyrazoline compound of general formula I at the nitrogen atom of the cyclic part of the aforementioned radicals;

[0256] a $-\text{O}-\text{R}^6$ moiety, a $-\text{NR}^7\text{R}^8$ moiety or a $-\text{NR}-\text{O}-\text{R}^{10}$ moiety;

[0257] R^4 represents F; Cl; Br; I; $-\text{CN}$; $-\text{NO}_2$; $-\text{NC}$; $-\text{OH}$; $-\text{NH}_2$; $-\text{SH}$; $-\text{C}(=\text{O})-\text{H}$; $-\text{C}(=\text{O})-\text{OH}$; $-\text{C}(=\text{O})-\text{OR}^{17}$;

[0258] a radical selected from the group consisting of methyl, $-\text{CF}_3$, $-\text{CH}_2\text{F}$, $-\text{CF}_2\text{H}$, $-\text{C}_2\text{F}_5$, ethyl, $-\text{CH}_2-\text{CN}$, $-\text{CH}_2-\text{OH}$, n-propyl, isopropyl, $-\text{CH}_2-\text{CH}_2-\text{CN}$, $-\text{CH}_2-\text{CH}_2-\text{OH}$, n-butyl, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CN}$, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{OH}$, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;

[0259] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl

(thiophenyl) and pyrrolyl, which may be bonded via a $-(\text{CH}_2)-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, F, Cl and Br; a $-\text{O}-\text{R}^{11}$ moiety; a $-\text{S}-\text{R}^{12}$ moiety, a $-\text{NH}-\text{R}$ moiety or a $-\text{NR}^{14}\text{R}^{15}$ moiety;

[0260] R^5 represents H; F; Cl; Br; $-\text{C}(=\text{O})-\text{OH}$; $-\text{C}(=\text{O})-\text{OR}^{17}$; or an alkyl radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl and n-butyl;

[0261] or R^4 and R^5 together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclopentenyl, cyclohexenyl, cycloheptenyl and cyclooctenyl;

[0262] R^6 represents a hydrogen atom; a radical selected from the group consisting of methyl, $-\text{CF}_3$, $-\text{CH}_2\text{F}$, $-\text{CF}_2\text{H}$, $-\text{CH}_2-\text{O}-\text{CH}_3$, $-\text{C}_2\text{F}_5$, $-\text{CH}_2-\text{CH}_2-\text{F}$, ethyl, $-\text{CH}_2-\text{CN}$, $-\text{CH}_2-\text{OH}$, n-propyl, isopropyl, $-\text{CH}_2-\text{CH}_2-\text{CN}$, $-\text{CH}_2-\text{CH}_2-\text{OH}$, $-\text{CH}_2-\text{CH}_2-\text{OCH}_3$, n-butyl, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CN}$, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{OH}$, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{O}-\text{CH}_3$, isobutyl, sec-butyl, tert-butyl, n-pentyl, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{O}-\text{CH}_3$, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl and n-octyl;

[0263] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, imidazolidinyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a $-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-(\text{CH}_2)-$ or $-\text{CH}=\text{CH}-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=\text{O}$), thioxo ($=\text{S}$), methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$ and $-\text{O}-\text{C}(\text{CH}_3)_3$;

[0264] a radical selected from the group consisting of pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl and imidazolyl, which may be bonded via a $-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-(\text{CH}_2)-$ or $-\text{CH}=\text{CH}-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, F, Cl, Br, I, $-\text{O}-\text{C}(=\text{O})-\text{CH}_3$, $-\text{O}-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{O}-\text{C}(=\text{O})-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{C}(=\text{O})-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{CH}_2-\text{N}(\text{CH}_3)_2$, $-(\text{CH}_2)-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{CH}_2-\text{N}(\text{C}_3\text{H}_7)_2$, $-\text{CH}_2-\text{N}(\text{C}_4\text{H}_9)_2$, $-\text{CH}_2-\text{N}(\text{CH}_3)(\text{C}_2\text{H}_5)$ and $-(\text{CH}_2)-\text{morpholinyl}$; a $-\text{P}(=\text{O})(\text{OR}^{16})_2$ moiety; a $-\text{C}(=\text{O})-\text{OR}^{17}$ moiety; a $-\text{C}(=\text{O})-\text{NH}-\text{R}^{18}$ moiety or a $-\text{C}(=\text{O})-\text{R}^{19}$ moiety.

[0265] R^7 and R^8 , independently of another, in each case represent a hydrogen atom;

[0266] a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, $-\text{CH}_2-\text{NH}_2$, $-\text{CH}_2-\text{N}(\text{CH}_3)_2$, $-\text{CH}_2-\text{CH}-\text{NH}_2$, $-\text{CH}_2-\text{CH}_2-\text{N}(\text{CH}_3)_2$, $-\text{CH}_2-\text{CH}_2-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{NH}_2$, $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{N}(\text{CH}_3)_2$ and $-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{N}(\text{C}_2\text{H}_5)_2$;

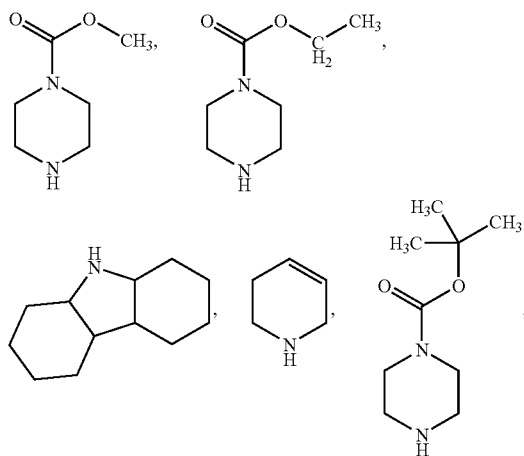
[0267] a radical selected from the group consisting of morpholinyl, piperidinyl, pyrrolidinyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, [1,2,3,4]-tetrahydronaphthyl and bicyclo[2.2.1]heptyl, which may be bonded via a $-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-(\text{CH}_2)-$ or $-\text{CH}=\text{CH}-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-\text{OH}$, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{Benzyl}$, benzyl, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl and n-hexyl;

[0268] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl) and triazolyl, which may be bonded via a $-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-(\text{CH}_2)-$ or $-\text{CH}=\text{CH}-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, F, Cl and Br;

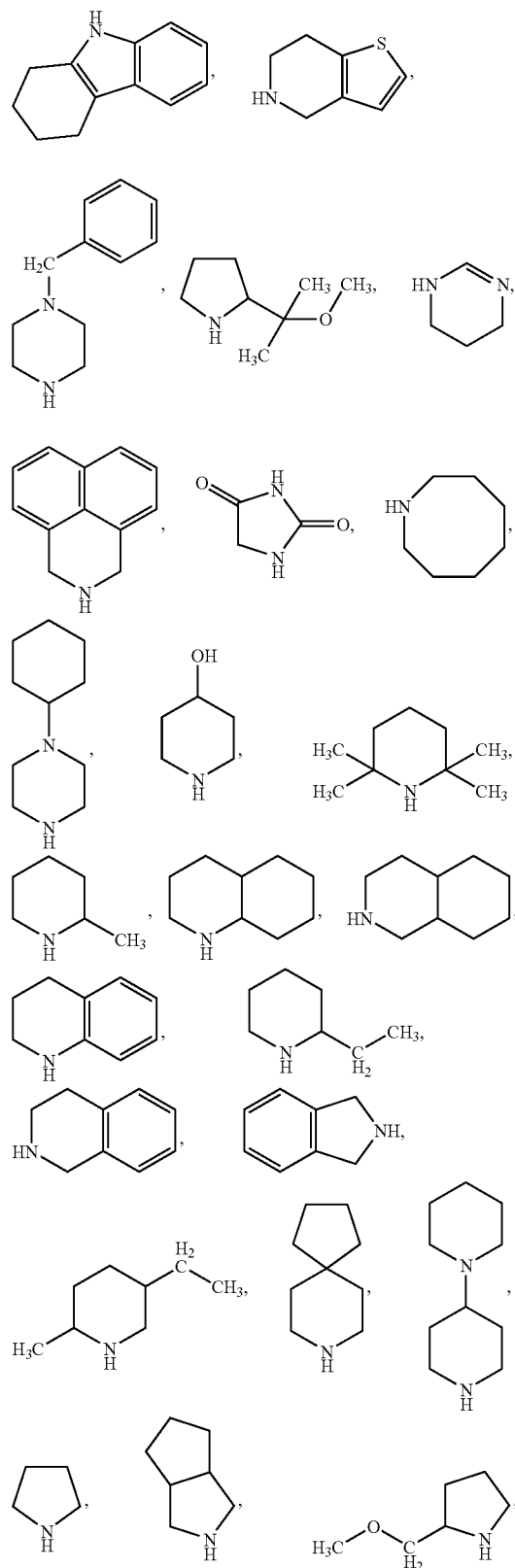
[0269] a $-\text{S}(=\text{O})_2-\text{R}^{20}$ moiety;

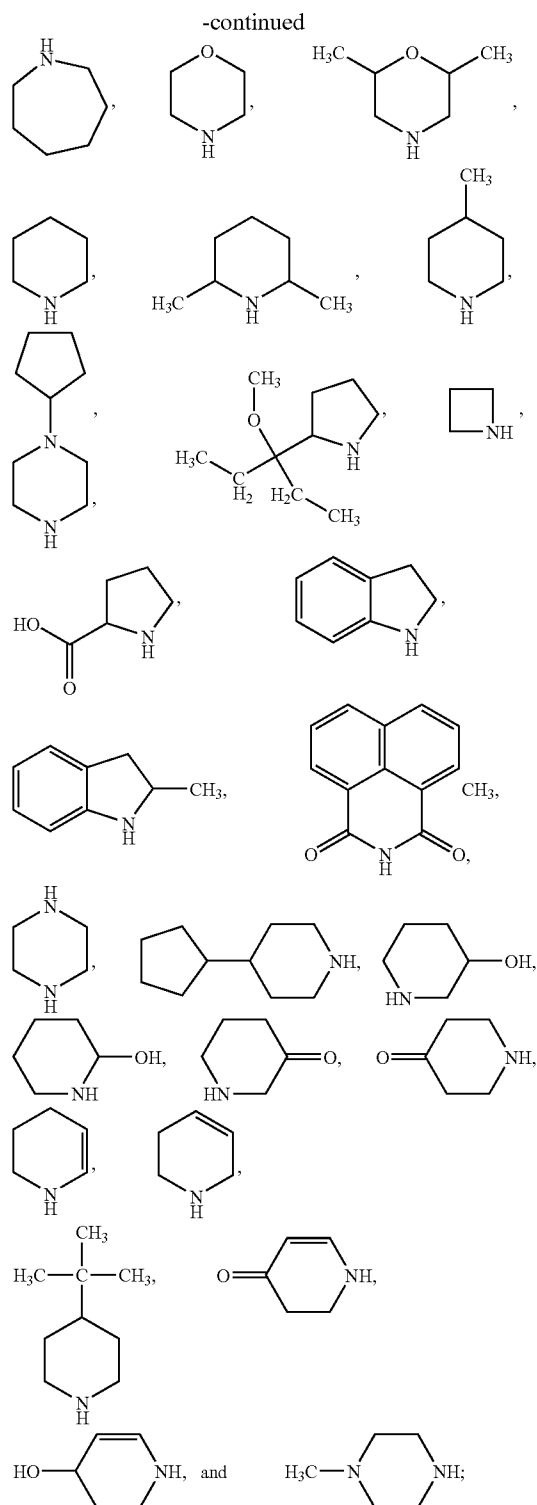
[0270] a $-\text{NR}^{21}\text{R}^{22}$ moiety;

[0271] a radical selected from the group consisting of



-continued





which is in each case bonded to the pyrazoline compound of general formula I in any position of the cyclic part of the aforementioned radicals including the NH— groups, optionally via a $-(CH_2)-$ or $-(CH_2)-(CH_2)-$ group, preferably said radicals are bonded to the pyrazoline

compound of general formula I at the nitrogen atom of the cyclic part of the aforementioned radicals;

[0272] R^9 represents hydrogen;

[0273] R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{20} independently of another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

[0274] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CF₃, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0275] or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃,

—O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

[0276] R¹⁶, R¹⁷, R¹⁸ and R¹⁹, independently of one another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butylnyl, n-pentynyl and n-hexynyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —NH—C(=O)—CH₃, —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃, —NH—C(=O)—O—CH₃, —NH—C(=O)—O—C₂H₅, —NH—C(=O)—O—C(CH₃)₃, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C(CH₃)₃, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —OH, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —C(=O)—CH₃, —C(=O)—C₂H₅ and —C(=O)—C(CH₃)₃;

[0277] or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —CH₂—N(CH₃)₂, —(CH₂)—N(C₂H₅)₂,

—CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅) and —(CH₂)-morpholinyl;

and

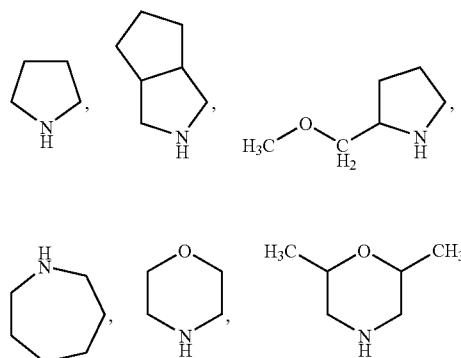
[0278] R²¹ and R²², independently of another, in each case represent hydrogen;

[0279] a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, —CH₂—NH₂, —CH—N(CH₃)₂, —CH₂—CH—NH₂, —CH₂—CH₂—N(CH₃)₂, —CH₂—CH₂—N(C₂H₅)₂, —CH₂—CH₂—CH₂—NH₂, —CH₂—CH₂—CH₂—N(CH₃)₂ and —CH₂—CH₂—CH₂—N(C₂H₅)₂;

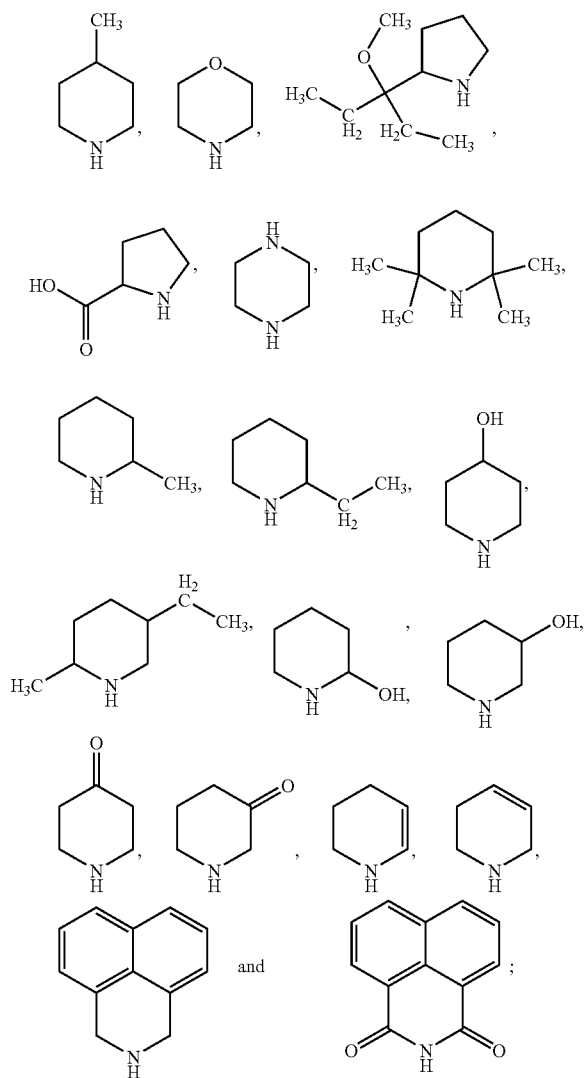
[0280] a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl and bicyclo [2.2.1]heptyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —OH, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl and n-hexyl;

[0281] a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl) and triazolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, F, Cl and Br;

[0282] or a radical selected from the group consisting of



-continued



which is in each case bonded to the pyrazoline compound of general formula I in any position of the cyclic part of the aforementioned radicals including the NH— groups, preferably said radicals are bonded to the pyrazoline compound of general formula I at the nitrogen atom of the cyclic part of the aforementioned radicals;

[0289] a —OR⁶-moiety or a —NR⁷R⁸ moiety;

[0290] R⁴ represents F; Cl; Br; I; —OH, —CN; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

[0291] a radical selected from the group consisting of methyl, —CF₃, —CH₂F, —CF₂H, —C₂F₅, ethyl, —CH₂—CN, —CH₂—OH, n-propyl, isopropyl, —CH₂—CH₂—CN, —CH₂—CH₂—OH, n-butyl, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;

[0292] a benzyl radical or a —O—R¹¹ moiety;

[0293] R⁵ represents H; F; Cl; Br; —C(=O)—OH; —C(=O)—OR¹⁷; or a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl and n-butyl;

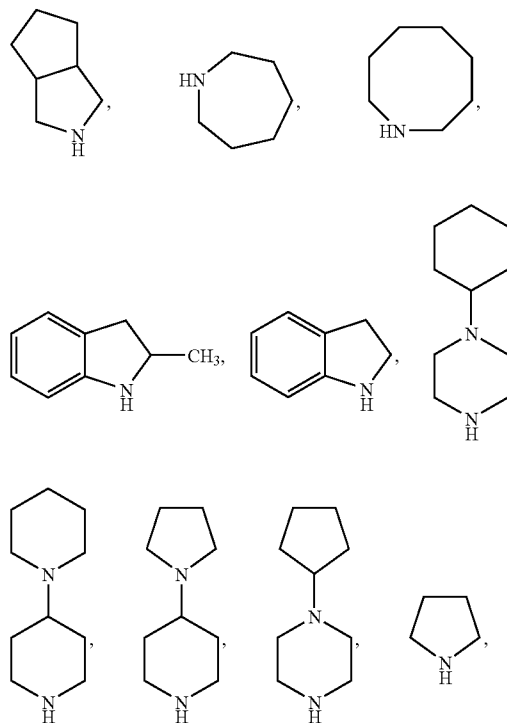
[0294] or R⁴ and R⁵ together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclopentenyl, cyclohexenyl, cycloheptenyl and cyclooctenyl;

[0295] R⁶ represents a hydrogen atom; a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl and tert-butyl or a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl and cycloheptyl;

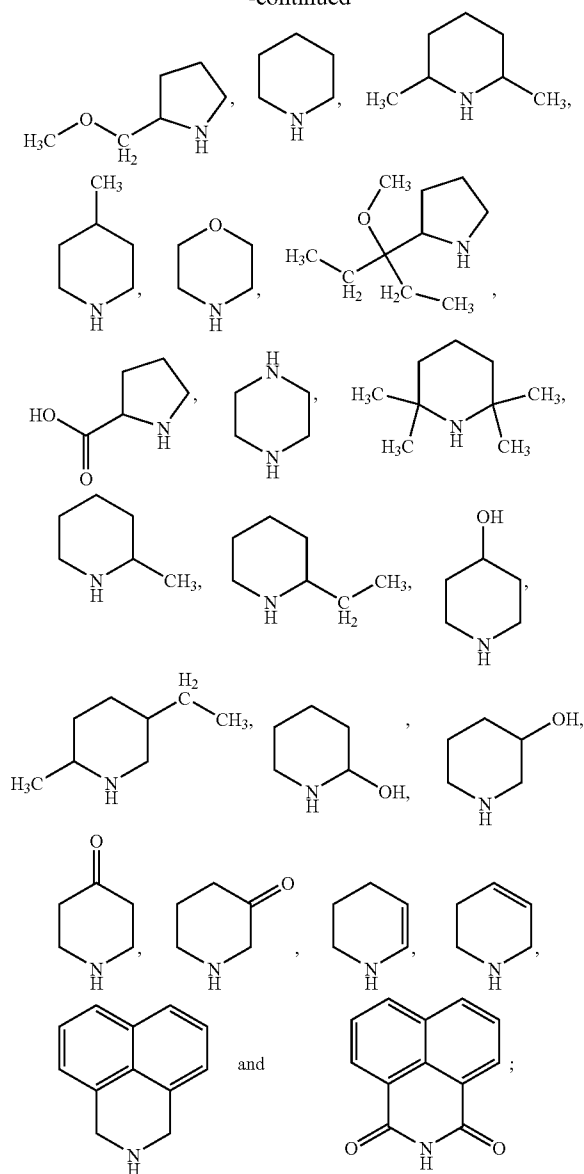
[0296] R⁷ represents a hydrogen atom or a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl and tert-butyl;

[0297] R⁸ represents a radical selected from the group consisting of [1,2,3,4]-tetrahydronaphthyl, bicyclo[2.2.1]heptyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl and cyclododecyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)— or —(CH₂)—(CH₂)—(CH₂)— group and/or substituted with 1, 2, 3 or 4 substituents selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, sec-butyl, tert-butyl, —OH, —O—CH₃ and —O—C₂H₅;

[0298] or a radical selected from the group consisting of



-continued



which is in each case bonded to the pyrazoline compound of general formula I in any position of the cyclic part of the aforementioned radicals including the NH— groups, preferably said radicals are bonded to the pyrazoline compound of general formula I at the nitrogen atom of the cyclic part of the aforementioned radicals;

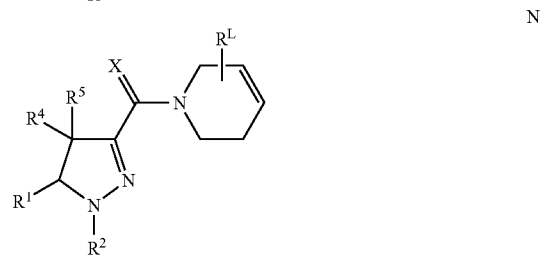
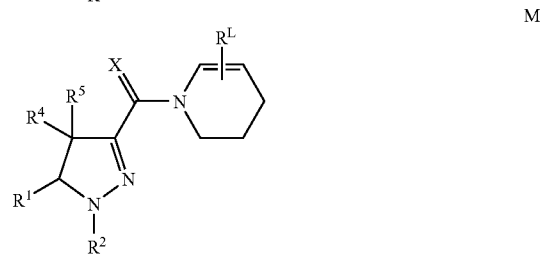
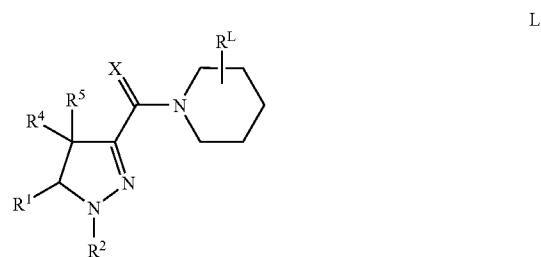
and

[0299] R^{11} and R^{17} , independently of one another, each represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl and neopentyl;

[0300] optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers,

preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

[0301] Also more particularly preferred are 4-substituted pyrazoline compounds of general formulae L, M or N,



wherein

[0302] R^L represents —OH or oxo (=O);

[0303] X is O or S;

[0304] R^1 represents a radical selected from the group consisting of phenyl and thienyl (thiophenyl), which may optionally be substituted with 1 substituent selected from the group consisting of —OH, —O—CH₃, —O—C₂H₅, F, Cl, Br and I;

[0305] R^2 represents a phenyl radical, which may be substituted with 1 or 2 substituent(s) independently selected from the group consisting of —OH, —O—CH₃, —O—C₂H₅, F, Cl, Br and I;

[0306] R^4 represents F; Cl; Br; I; —OH, —CN; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

[0307] a radical selected from the group consisting of methyl, —CF₃, —CH₂F, —CF₂H, —C₂F₅, ethyl, —CH₂—CN, —CH₂—OH, n-propyl, isopropyl, —CH₂—CH₂—CN, —CH₂—CH₂—OH, n-butyl, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl,

[0308] a benzyl radical or a —O—R^{11} moiety;

[0309] R^5 represents H; F; Cl; Br; —C(=O)—OH ; —C(=O)—OR^{17} ; or radical selected from the group consisting of methyl, ethyl, n-propyl, iso-propyl and n-butyl;

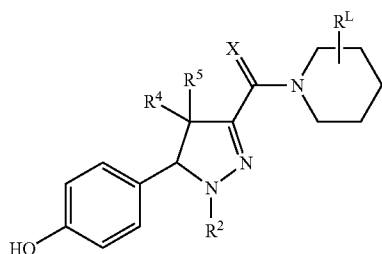
[0310] or R^4 and R^5 together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclopentenyl, cyclohexenyl, cycloheptenyl and cyclooctenyl;

and

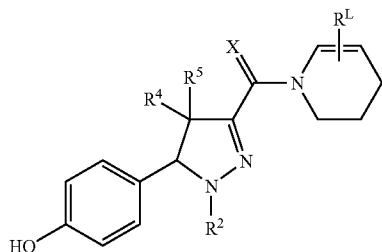
[0311] R^{11} and R^{17} , independently of one another, each represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, and neo-pentyl;

[0312] optionally in form of one of its stereoisomers, preferable enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

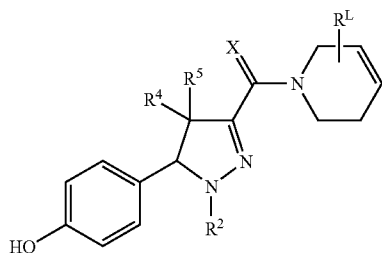
[0313] Also more particularly preferred are 4-substituted pyrazoline compound of general formulae L, M or N,



L



M



N

wherein

[0314] R^L represents H, —OH or oxo (=O);

[0315] X is O or S;

[0316] R^2 represents a phenyl radical, which may be substituted with 1 or 2 substituent(s) independently selected from the group consisting of —OH , —O—CH_3 , $\text{—O—C}_2\text{H}_5$, F, Cl, Br and I;

[0317] R^4 represents F; Cl; Br; I; —OH , —CN ; —C(=O)—H ; —C(=O)—OH ; —C(=O)—OR^{17} ;

[0318] a radical selected from the group consisting of methyl, —CF_3 , $\text{—CH}_2\text{F}$, $\text{—CF}_2\text{H}$, $\text{—C}_2\text{F}_5$, ethyl, $\text{—CH}_2\text{—CN}$, $\text{—CH}_2\text{—OH}$, n-propyl, isopropyl, $\text{—CH}_2\text{—CH}_2\text{—CN}$, $\text{—CH}_2\text{—CH}_2\text{—OH}$, n-butyl, $\text{—CH}_2\text{—CH}_2\text{—CH}_2\text{—CN}$, $\text{—CH}_2\text{—CH}_2\text{—CH}_2\text{—OH}$, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;

[0319] a benzyl radical or a O—R^{11} moiety;

[0320] R^5 represents H; F; Cl; Br; —C(=O)—OH ; —C(=O)—OR^{17} ; or a radical selected from the group consisting of methyl, ethyl, n-propyl, iso-propyl and n-butyl;

[0321] or R^4 and R^5 together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclopentenyl, cyclohexenyl, cycloheptenyl and cyclooctenyl;

and

[0322] R^{11} and R^{17} , independently of one another, each represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl and neo-pentyl;

[0323] optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

[0324] Most particularly preferred are 4-substituted pyrazoline compounds of general formula I given above selected from the group consisting of

[0325] [1] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydro-chloride

[0326] [2] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydro-chloride

[0327] [3] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide

[0328] [4] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide

[0329] [5] cis-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-(4-cyclohexyl-piperazin-1-yl)-methanone

- [0330] [6] trans-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-(4-cyclohexyl-piperazin-1-yl)-methanone
- [0331] [7] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid pyrrolidin-1-ylamide
- [0332] [8] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid pyrrolidin-1-ylamide
- [0333] [9] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (4-methyl-piperidin-1-yl)-amide
- [0334] [10] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (4-methyl-piperidin-1-yl)-amide
- [0335] [11] cis-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone
- [0336] [12] trans-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone
- [0337] [13] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta[c]pyrrol-2-yl)-amide
- [0338] [14] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta-[c]pyrrol-2-yl)-amide
- [0339] [15] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (2,3-dihydro-indol-1-yl)-amide
- [0340] [16] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (2,3-dihydro-indol-1-yl)-amide
- [0341] [17] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclobutylamide
- [0342] [18] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclo-hexyl methyl-amide
- [0343] [19] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0344] [20] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0345] [21] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0346] [22] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0347] [23] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester
- [0348] [24] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester
- [0349] [25] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid ethyl ester
- [0350] [26] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid ethyl ester
- [0351] [27] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclohexyl ester
- [0352] [28] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0353] [29] 5-(4-Chloro-phenyl)-1-(2,4-dichlorophenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0354] [30] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0355] [31] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0356] [32] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0357] [33] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0358] [34] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0359] [35] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0360] [36] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0361] [37] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0362] [38] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0363] [39] 5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0364] [40] 5-(4-Chloro-phenyl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0365] [41] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0366] [42] 1-(2,4-Dichloro-phenyl)-4-ethyl-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide

- [0367] [43] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0368] [44] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0369] [45] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0370] [46] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0371] [47] 1-(2,4-Dichloro-phenyl)-4-fluoromethyl-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0372] [48] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0373] [49] 4-Cyano-1-(2,4-dichloro-phenyl)-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0374] [50] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0375] [51] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0376] [52] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0377] [53] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0378] [54] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0379] [55] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0380] [56] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0381] [57] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0382] [58] 5-(4-Bromo-phenyl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0383] [59] cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0384] [60] trans-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0385] [61] cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0386] [62] trans-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0387] [63] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0388] [64] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0389] [65] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0390] [66] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0391] [67] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0392] [68] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0393] [69] 5-(5-Chloro-thiophen-2-yl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide [70] cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0394] [71] trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0395] [72] cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0396] [73] trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0397] [74] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0398] [75] cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0399] [76] trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0400] [77] cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0401] [78] trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0402] [79] 5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide

- [0403] [80] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0404] [81] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0405] [82] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0406] [83] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0407] [84] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0408] [85] 5-(5-Bromo-thiophen-2-yl)-4-cyano-1-(2,4-dichlorophenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0409] [86] cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0410] [87] trans-[5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone
- [0411] [88] cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0412] [89] trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0413] [90] cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0414] [91] trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid,
- [0415] 92 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0416] 93 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0417] 94 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0418] 95 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0419] 96 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- [0420] 97 trans-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- [0421] 98 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0422] 99 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0423] 100 cis-5-(4-chlorophenyl)-N-(4-cyclopentylpiperazin-1-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0424] 101 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-morpholino-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0425] 102 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(4-methylpiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0426] 103 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(2,6-dimethylpiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0427] 104 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (1,3-dioxo-1H,3H-benzo[de]isoquinolin-2-yl)-amide
- [0428] 105 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (1H,3H-benzo[de]isoquinolin-2-yl)-amide
- [0429] 106 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((R)-2-(methoxymethyl)pyrrolidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0430] 107 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((S)-2-(methoxymethyl)pyrrolidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0431] 108 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta[c]pyrrol-2-yl)-amide hydrochloride
- [0432] 109 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0433] 110 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0434] 111 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0435] 112 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0436] 113 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(2-methylindolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0437] 114 cis-5-(4-chlorophenyl)-N-(cyclohexylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

- [0438] 115 cis-5-(4-chlorophenyl)-N-(cycloheptylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0439] 116 cis-5-(4-chlorophenyl)-N-cyclododecyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0440] 117 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0441] 118 cis-N-(4-tert-butylcyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0442] 119 cis-5-(4-chlorophenyl)-N-cyclooctyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0443] 120 cis-N-(azocan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0444] 121 cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0445] 122 cis-azocan-1-yl(cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl)methanone
- [0446] 123 cis-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0447] 124 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0448] 125 trans-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0449] 126 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0450] 127 cis-5-(4-chlorophenyl)-N-(cyclohexylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0451] 128 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0452] 129 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0453] 130 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1R,2R)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0454] 131 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1R,2R)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0455] 132 (+)-cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0456] 133 (-)-cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0457] 134 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(4-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0458] 135 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(4-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0459] 136 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(3-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0460] 137 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(3-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0461] 138 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(2-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0462] 139 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(2-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0463] 140 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0464] 141 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0465] 142 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0466] 143 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0467] 144 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0468] 145 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0469] 146 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0470] 147 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0471] 148 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0472] 149 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0473] 150 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclohexyl ester
- [0474] 151 N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxamide

- [0475] 152 1-(2-chlorophenyl)-5-(4-chlorophenyl)-4,4-dimethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0476] 153 N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0477] 154 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0478] 155 trans-5-(4-Chloro-phenyl)-1-(2,4-dichlorophenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [0479] 156 cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0480] 157 trans-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0481] 158 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0482] 159 trans 1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0483] 160 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-3-(piperidin-1-yl)carbamoyl-4,5-dihydro-1H-pyrazole-4-carboxylic acid
- [0484] 161 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4,4-difluoro-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0485] 162 cis-5-(4chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0486] 163 cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-4-cyano-1-(2,4dichlorophenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0487] 164cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-cyano-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0488] 165 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-cyano-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0489] 166 trans-5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0490] 167 trans-N-(azepan-1-yl)-5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0491] 168 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-cyano-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0492] 169 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0493] 170 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0494] 171 cis5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0495] 172 trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0496] 173cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0497] 174 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0498] 175 cis -N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0499] 176 trans-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0500] 177 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0501] 178 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0502] 179 cis-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0503] 180 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0504] 181 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0505] 182 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0506] 183 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0507] 184 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0508] 185 cis5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0509] 186 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0510] 187 cis5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0511] 188 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0512] 189 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

- [0513] 190 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0514] 191 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0515] 192 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0516] 193 cis-5-(4-bromophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0517] 194 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-cycloheptyl-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0518] 195 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0519] 196 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0520] 197 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0521] 198 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0522] 199 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0523] 200 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0524] 201 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0525] 202 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0526] 203 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0527] 204 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0528] 205 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0529] 206 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0530] 207 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0531] 208 trans-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0532] 209 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0533] 210 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0534] 211 cis-5-(4-bromophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0535] 212 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0536] 213 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0537] 214 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0538] 215 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0539] 216 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0540] 217 (+)-cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0541] 218 (-)-cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0542] 219 (+)-cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0543] 220 (-)-cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0544] 221 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0545] 222 trans-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0546] 223 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0547] 224 trans-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide 225 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0548] 226 trans-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0549] 227 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

- [0550] 228 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0551] 229 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0552] 230 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0553] 231 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0554] 232 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0555] 233 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0556] 234 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0557] 235 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0558] 236 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0559] 237 (+)-cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0560] 238 (-)-cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0561] 239 (+)-cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0562] 240 (-)-cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0563] 241 cis-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0564] 242 trans-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0565] 243 cis-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0566] 244 trans-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0567] 245 cis-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0568] 246 trans-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0569] 247 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0570] 248 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0571] 249 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0572] 250 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0573] 251 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0574] 252 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0575] 253 cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0576] 254 cis-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0577] 255 cis-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0578] 256 cis-1-(2-chlorophenyl)-N-(indolin-1-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0579] 257 (+)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0580] 258 (-)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0581] 259 (+)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0582] 260 (-)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0583] 261 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0584] 262 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0585] 263 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

- [0586] 264 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0587] 265 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0588] 266 (+)-cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0589] 267 (-)-cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0590] 268 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0591] 269 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0592] 270 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0593] 271 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0594] 272 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0595] 273 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0596] 274 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0597] 275 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0598] 276 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0599] 277 cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0600] 278 cis-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0601] 279 cis-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0602] 280 cis-1-(2-chlorophenyl)-N-(indolin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0603] 281 (+)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0604] 282 (-)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0605] 283 (+)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0606] 284 (-)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0607] 285 cis-1-(2,4-dichlorophenyl)-N-(4-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide 286 cis-1-(2-chlorophenyl)-N-(4-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0608] 287 cis-1-(2,4-dichlorophenyl)-N-(3-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0609] 288 cis-1-(2-chlorophenyl)-N-(3-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0610] 289 cis-1-(2,4-dichlorophenyl)-N-(2-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0611] 290 cis-1-(2-chlorophenyl)-N-(2-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0612] 291 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0613] 292 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0614] 293 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0615] 294 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0616] 295 cis-1-(2,4-dichlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0617] 296 cis-1-(2-chlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0618] 297 cis-1-(2,4-dichlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0619] 298 cis-1-(2-chlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0620] 299 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0621] 300 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide

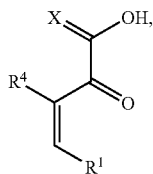
- [0622] 301 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0623] 302 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0624] 303 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0625] 304 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0626] 305 1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,4-dimethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0627] 306 N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0628] 307 1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4,4-dimethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0629] 308 1-(2,4-dichlorophenyl)-4-formyl-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0630] 309 1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-3-(piperidin-1-ylcarbonyl)-4,5-dihydro-1H-pyrazole-4-carboxylic acid
- [0631] 310 1-(2,4-dichlorophenyl)-4-(2-hydroxyethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0632] 311 1-(2,4-dichlorophenyl)-4-(fluoromethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0633] 312 cis-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0634] 313 trans-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0635] 314 cis-N-(azepan-1-yl)-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0636] 315 trans-N-(azepan-1-yl)-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0637] 316 cis-1-(2-chlorophenyl)-4-cyano-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0638] 317 trans-1-(2-chlorophenyl)-4-cyano-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0639] 318 1-(2,4-dichlorophenyl)-4-hydroxy-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0640] 319 1-(2-chlorophenyl)-4,4-difluoro-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0641] 320 1-(2-chlorophenyl)-4-formyl-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0642] 321 1-(2-chlorophenyl)-5-(4-methoxyphenyl)-3-(piperidin-1-ylcarbonyl)-4,5-dihydro-1H-pyrazole-4-carboxylic acid
- [0643] 322 1-(2-chlorophenyl)-4-(2-hydroxyethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0644] 323 1-(2-chlorophenyl)-4-(fluoromethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0645] 324 1-(2-chlorophenyl)-4-hydroxy-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0646] 325 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0647] 326 trans-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0648] 327 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0649] 328 trans-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0650] 329 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0651] 330 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0652] 331 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0653] 332 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0654] 333 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0655] 334 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0656] 335 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0657] 336 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

- [0658] 337 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-1H-pyrazole-3-carboxamide
- [0659] 338 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0660] 339 (+)-cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0661] 340 (-)-cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0662] 341 (+)-cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0663] 342 (-)-cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0664] 343 cis-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0665] 344 trans-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0666] 345 cis-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0667] 346 trans-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0668] 347 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0669] 348 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0670] 349 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0671] 350 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0672] 351 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0673] 352 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0674] 353 cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0675] 354 cis-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0676] 355 cis-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0677] 356 cis-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0678] 357 (+)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0679] 358 (-)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0680] 359 (+)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0681] 360 (-)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0682] 361 cis-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0683] 362 trans-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0684] 363 cis-1-(2-chlorophenyl)-5-(5-chlorothiophen-2-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0685] 364 trans-1-(2-chlorophenyl)-5-(5-chlorothiophen-2-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0686] 365 cis-5-(5-bromothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0687] 366 trans-5-(5-bromothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0688] 367 cis-1-(2,4-dichlorophenyl)-4-methyl-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0689] 368 trans-1-(2,4-dichlorophenyl)-4-methyl-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0690] 369 cis-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0691] 370 trans-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0692] 371 cis-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0693] 372 trans-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0694] 373 cis-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0695] 374 trans-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0696] 375 cis-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

- [0697] 376 trans-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0698] 377 cis-1-(2-chlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0699] 378 trans-1-(2-chlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0700] 379 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide hydrochloride
- [0701] 380 trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0702] 381 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0703] 382 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0704] 383 cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0705] 384 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0706] 385 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0707] 386 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0708] 387 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0709] 388 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0710] 389 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0711] 390 trans-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0712] 391 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0713] 392 trans-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0714] 393 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0715] 394 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0716] 395 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0717] 396 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0718] 397 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0719] 398 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0720] 399 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0721] 400 trans-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0722] 401 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0723] 402 trans-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0724] 403 cis-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0725] 404 trans-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0726] 405 cis-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0727] 406 trans-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- [0728] 407 7-(4-Chloro-phenyl)-6(2,4-dichlorophenyl)-5,6-diaza-spiro[2.4]hept-4-ene-4-carboxylic acid piperidin-1-ylamide
- [0729] 408 6-(2,4-Dichloro-phenyl)-7-(4-methoxyphenyl)-5,6-diaza-spiro[2.4]hept-4-ene-4-carboxylic acid piperidin-1-ylamide
- [0730] 409 (+)-(c)-N-((1S,2S)-2-(benzyloxy cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0731] [410] cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0732] [411] cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0733] [412] (4R,5S)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0734] [413] cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

- [0735] [414] cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0736] 415 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0737] 416 trans-ethyl 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylate
- [0738] 417 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0739] 418 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0740] 419 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0741] 420 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0742] 421 trans-ethyl 1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate
- [0743] 422 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-((1R,2S,4R)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0744] 423 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(3-methylcyclohexyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0745] 424 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(2-methylcyclohexyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0746] 426 trans-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0747] 427 cis-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0748] 428 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0749] [429] 1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [0750] [430] cis-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [0751] [431] trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0752] 432 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0753] 434 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0754] 436 (+)-cis-N-((1S,2S)-2-(benzyloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0755] -437 (-)-cis-N-((1R,2R)-2-(benzyloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0756] 438 cis-N-(azocan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0757] 439 cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0758] 440 cis-N-(azocan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0759] 441 cis-N-(azocan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0760] 442 cis-N-(azocan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0761] 443 cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [0762] 444 (+)-cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- [0763] 445 (-)-cis-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- [0764] [446] cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [0765] [447] cis-5-(4-chlorophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [0766] [448] cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [0767] [449] cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [0768] [450] cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide and
- [0769] [451] cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide;
- optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.
- [0770] In another aspect the present invention also provides a process for the preparation of 4-substituted pyrazoline compounds of general formula I given above, wherein

R⁵ represents hydrogen, according to which at least one compound of general formula II,



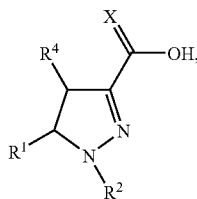
II

wherein R¹, X and R⁴ have the meaning given above, is reacted with at least one compound of general formula III,



III

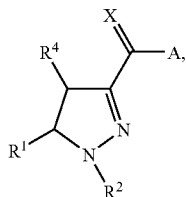
or a corresponding salt thereof, wherein R² has the meaning given above, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one acid, to yield at least one compound of general formula IV,



IV

wherein R¹, X, R² and R⁴ have the meaning given above, which is optionally isolated and/or purified,

and at least one compound of general formula IV is reacted with an activating agent in a reaction medium, optionally in an inert atmosphere, to yield at least one compound of general formula V,



V

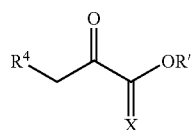
wherein R¹, X, R² and R⁴ have the meaning according given above and A represents a leaving group, which is optionally purified and/or isolated,

and at least one compound of general formula V is reacted with at least one compound of general formula R³-H, wherein R³ has the meaning given above, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base selected from the group consisting of diisopropylethylamine, triethylamine, pyridine, dimethylaminopyridine and N-methylmorpholine, to yield at least one compound of general formula I, wherein

R¹, R², X, R³ and R⁴ have the meaning given above and R⁵ represents hydrogen, which is optionally purified and/or isolated;

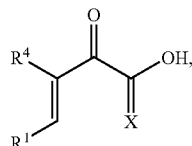
or at least one compound of general formula IV is reacted with at least one compound of general formula R³-H, wherein R³ represents a —NR⁷R⁸ moiety, whereby R⁷ and R⁸ have the meaning given above, in a reaction medium, in the presence of at least one coupling agent, optionally in the presence of at least one base, to yield at least one compound of general formula I, wherein R¹, R², X and R⁴ have the meaning given above, R³ represents a —NR⁷R⁸ moiety and R⁵ represents hydrogen, which is optionally purified and/or isolated.

[0771] Also preferred is the process for the preparation of a compound of general formula I given above, wherein R⁵ represents a hydrogen atom, according to which at least one compound of general formula R¹-C(=O)-H (general formula VII), wherein R¹ has the meaning given above, is reacted with at least one compound of general formula VI,



VI

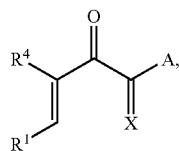
wherein R⁴ and X have the meaning given above and R¹ represents a linear or branched C₁₋₆-alkyl radical, preferably an ethyl radical, a potassium cation or a sodium cation, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base, to yield at least one compound of general formula II,



II

wherein R¹, X and R⁴ have the meaning given above, which is optionally purified and/or isolated,

and at least one compound of general formula II is reacted with an activating agent in a reaction medium, optionally in an inert atmosphere, to yield at least one compound of general formula VII,

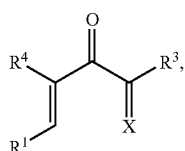


VIII

wherein R¹, X and R⁴ have the meaning given above and A represents a leaving group, which is optionally purified and/or isolated,

and at least one compound of general formula VII is reacted with at least one compound of general formula R³-H,

wherein R^3 has the meaning given above, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base selected from the group consisting of diisopropylethylamine, triethylamine, pyridine, dimethylaminopyridine and N-methylmorpholine, to yield at least one compound of general formula IX,



wherein R^1 , X , R^3 and R^4 have the meaning given above, which is optionally purified and/or isolated;

or at least one compound of general formula II is reacted with at least one compound of general formula R^3-H , wherein R^3 represents a $-NR^7R^8$ moiety, whereby R^7 and R^8 have the meaning given above, in a reaction medium, in the presence of at least one coupling agent, optionally in the

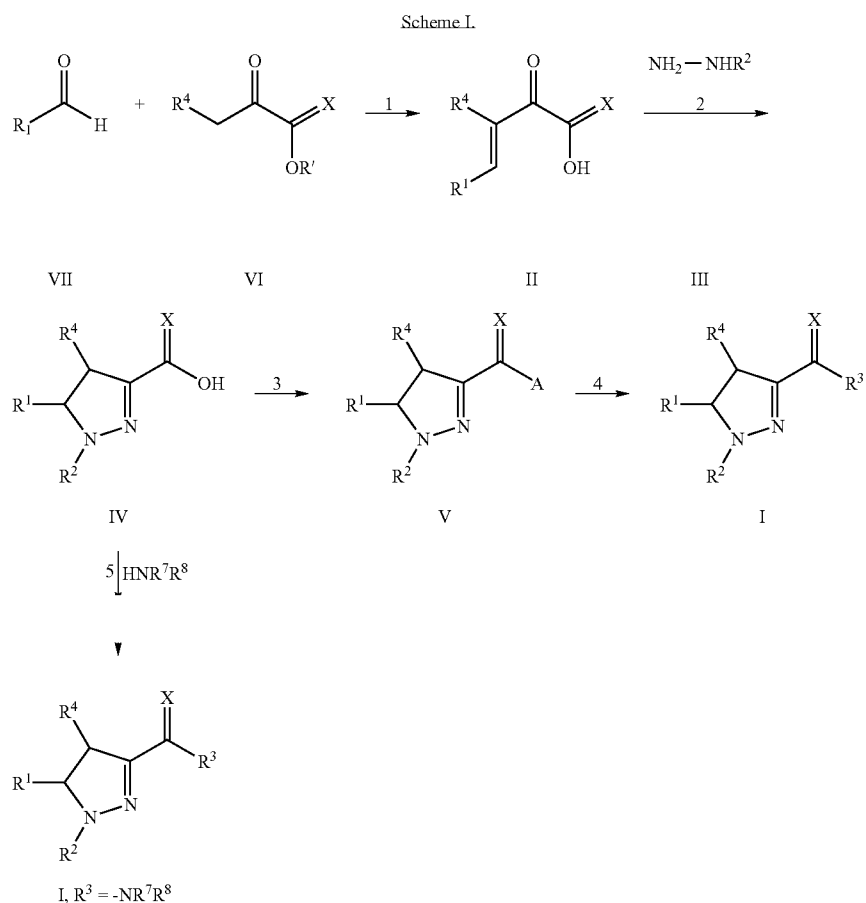
presence of at least one base, to yield at least one compound of general formula IX, wherein R^3 represents a $-NR^7R^8$ moiety, which is optionally purified and/or isolated,

and at least one compound of general formula IX is reacted with at least one compound of general formula III,



wherein R^2 has the meaning given above, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one acid, to yield a compound of general formula I, wherein R^1 , X , R^2 , R^3 and R^4 have the meaning given above and R^5 represents hydrogen, which is optionally purified and/or isolated.

[0772] The inventive process is also illustrated in scheme I given below:



[0773] In step 1 a compound of general formula VI is reacted with a compound of general formula VII in a protic reaction medium, preferably in a reaction medium selected from the group consisting of methanol, ethanol, isopropanol, n-butanol, water and mixtures thereof, in the presence of at least one base, preferably in the presence of an alkali metal hydroxide such as sodium hydroxide or potassium hydroxide or an alkali metal methoxide such as sodium methoxide, as described, for example, in Synthetic Communications, 26(11), 2229-33, (1996). The respective description is hereby incorporated by reference and forms part of the disclosure. Reaction temperature as well as the duration of the reaction may vary over a broad range. Preferred reaction temperatures range from -10° C. to the boiling point of the reaction medium. Suitable reaction times may vary for example from several minutes to several hours.

[0774] Preferably the reaction between a compound of general formula VI and general formula VII can also be carried out under acid catalysed conditions, more preferably by refluxing the above mentioned compounds in dichloromethane in the presence of copper(II)trifluoromethanesulfonate as described, for example, in Synlett, (1), 147-149, 2001. The respective description is hereby incorporated by reference and forms part of the disclosure.

[0775] In step 2 a compound of general formula II is reacted with a compound of general formula III in a reaction medium, preferably in a reaction medium selected from the group consisting of methanol, ethanol, isopropanol, n-butanol, diethylether, tert-butyl-methylether, dioxane, Tetrahydrofuran or mixtures of at least two of these afore mentioned reaction media. Also preferably, said reaction may be carried out in the presence of an acid, whereby the acid may be organic such as acetic acid and/or inorganic such as hydrochloric acid. Alternatively the reaction may also be carried out in the presence of a base such as piperidine, piperazine, sodium hydroxide, potassium hydroxide, sodium methoxide or sodium ethoxide or mixtures of at least two of these bases.

[0776] Reaction temperature as well as the duration of the reaction may vary over a broad range. Suitable reaction temperatures range from room temperature, i.e. approximately 25° C. to the boiling point of the reaction medium. Suitable reaction times may vary for example from several minutes to several hours. This reaction preferably leads to racemates of compounds of general formula IV, wherein the substituents R^1 and R^4 are located cis to one another on the pyrazoline ring. The respective enantiomers can be separated by conventional methods including chiral HPLC or resolution via the formation of diastereomeric salts and thus leading to compounds of general formula IV with an ee>99%. The configuration of compounds of general formula IV is maintained during the subsequent reaction steps, thus leading to enantiomerically pure compounds of general formula I (ee>99%). In step 2 racemates of compounds of general formula IV, wherein the substituents R^1 and R^4 are located trans to one another on the pyrazoline ring, are also formed, albeit in a low yield.

[0777] In step 3 the carboxylic group of the compound of general formula IV may be activated for further reactions by the introduction of a suitable leaving group according to conventional methods well known to those skilled in the art. Preferably the compounds of general formula IV are transferred into an acid chloride, an acid anhydride, a mixed

anhydride, a C_{1-4} alkyl ester or an activated ester such as p-nitrophenylester. Suitable activating agent therefore are selected from the group consisting of thionyl chloride, oxalyl chloride and ethylchloroformate.

[0778] If said activated compound of general formula V is an acid chloride, wherein A represents a chlorine atom, that compound is preferably prepared by the reaction of the corresponding acid of general formula IV with thionyl chloride or oxalyl chloride, whereby said chlorinating agent is also used as the reaction medium, in the presence of at least one base, preferably in the presence of a base selected from the group consisting of triethylamine, N-methylmorpholine, pyridine, dimethylaminopyridine and diisopropylethylamine. Also preferably an additional reaction medium may be used. Suitable reaction media include hydrocarbons such as benzene, toluene or xylene, halogenated hydrocarbons such as dichloromethane, chloroform or carbon tetrachloride, ethers such as diethyl ether, dioxane, Tetrahydrofuran or dimethoxyethane or dimethylformamide and mixtures thereof. More preferably toluene in the presence of a catalytic amount of dimethylformamide is used as reaction medium. Preferred reaction temperature range from 0° C. to the boiling point of the solvent and reaction times vary from several minutes to several hours.

[0779] If said activated compound of general formula V is a mixed anhydride, wherein A represents $-O-C(=O)-O-C_2H_5$, said anhydride may preferably be prepared, for example, by reaction of the corresponding acid of general formula IV with ethylchloroformate in the presence of a base such as triethylamine, pyridine or diisopropylethylamine, in a suitable solvent such as dichloromethane, optionally in an inert atmosphere, at a temperature between -50° C. and 50° C.

[0780] In step 4 the reaction between a compound of general formula V with a compound of general formula $H-R^3$ to yield a compound of general formula I, wherein R^3 represents a $-NR^7R^8$ moiety, is preferably carried out in the presence of a base such as triethylamine in a reaction medium such as methylenchloride. The temperature is preferably in the range from 0° C. to the boiling point of the reaction medium. The reaction time may vary over a broad range, e.g. from several hours to several days.

[0781] Alternatively the reaction of a compound of general formula V with a compound of general formula $H-R^3$ to yield compounds of general formula I may be carried out according to conventional methods well known to those skilled in the art, e.g. from Pascual, A., J. Prakt Chem., 1999, 341(7), 695-700; Lin, S. et al., Heterocycles, 2001, 55(2), 265-277; Rao, P. et al., J. Org. Chem., 2000, 65(22), 7323-7344; Pearson D. E and Buehler, C. A., Synthesis, 1972, 533-542 and references cited therein. The respective descriptions are hereby incorporated by reference and form part of the present disclosure.

[0782] Preferably said reaction is carried out in the presence of a Lewis acid, which is preferably selected from the group consisting of $FeCl_3$, $ZnCl_2$ and $AlCl_3$, in a suitable reaction medium such as toluene, benzene, Tetrahydrofuran or similar reaction media. The temperature is preferably in the range from 0° C. to the boiling point of the reaction medium, more preferably from 15 to 25° C. The reaction time may vary over a broad range, e.g. from several minutes to several hours.

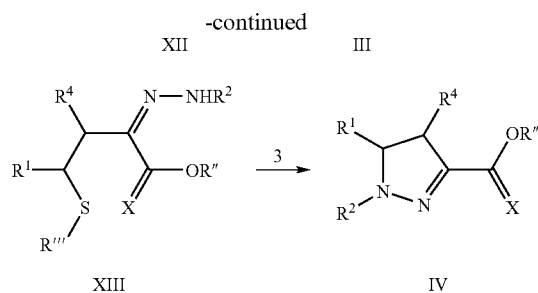
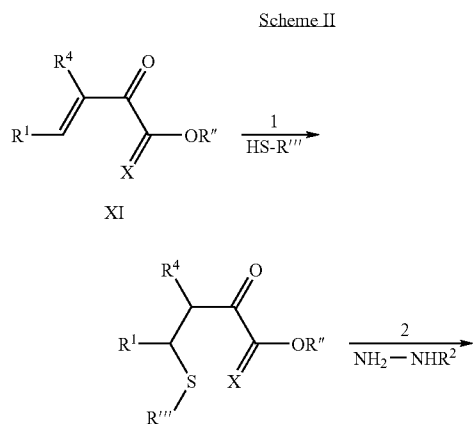
[0783] In step 5 a compound of general formula IV is reacted with a compound of general formula $H-R^3$,

wherein R^3 represents a $—NR^7R^8$ moiety, in a reaction medium, preferably in a reaction medium selected from the group consisting of diethylether, Tetrahydrofuran, acetonitrile, methanol, ethanol, (1,2)-dichloroethane, dimethylformamide, dichloromethane and mixtures thereof, in the presence of at least one coupling agent, preferably in the presence of a coupling agent selected from the group consisting of 1-benzotriazolylloxy-tris-(dimethylamino)-phosphonium hexafluorophosphate (BOP), dicyclohexylcarbodiimide (DCC), N^t -(3-dimethylaminopropyl)- N -ethylcarbodiimide (EDCI), diisopropylcarbodiimide, 1,1'-carbonyl-diimidazole (CDI), N -[(dimethylamino)-1H-1, 2, 3-triazolo[4, 5-b]pyridino-1-ylmethyl]- N -methylmethanaminium hexafluorophosphate N -oxid (HATU), O -(benzotriazol-1-yl)- N,N,N',N' -tetramethyluronium hexafluorophosphate (HBTU), O -(benzotriazol-1-yl)- N,N,N',N' -tetramethyluronium-tetrafluoroborate (TBTU), 1-hydroxybenzotriazole (HOBt) and 1-hydroxy-7-azabenzotriazol (HOAt), optionally in the presence of a base, preferably in the presence of a base selected from the group consisting of pyridine, dimethylaminopyridine, N -methylmorpholine, triethylamine and diisopropylethylamine to yield a compound of general formula I, wherein R^3 represents a $—NR^7R^8$ moiety.

[0784] Preferably said reaction is carried out in the presence of EDCI and HOBt, optionally in the presence of N -methylmorpholine or triethylamine, in an aprotic reaction medium such as dimethylformamide or Tetrahydrofuran, at a temperature between 20° C. and 30° C. for 15 to 24 hours as described in Tetrahedron Lett. 2004, 45, 4977. The respective description is hereby incorporated by reference and forms part of the disclosure. Polymer-supported EDCI (P-EDCI) can also suitably be used for this process instead of EDCI as described in Tetrahedron Lett. 1998, 39, 1487 and Tetrahedron Lett. 2002, 43, 7685. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

[0785] Alternatively said reaction can be carried out by using HBTU in the presence of a base such as diisopropylethylamine in an aprotic solvent, such as acetonitrile, preferably at a temperature between 20 and 30° C. for 15 to 24 hours.

[0786] A further inventive process to obtain compounds of general formula IV is illustrated in scheme II given below.



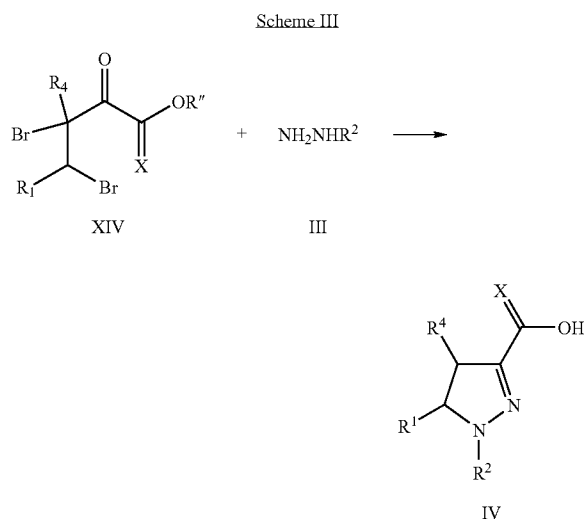
[0787] In step 1 a compound of general formula XI, wherein R^1 , R^4 and X have the meaning given above and R'' represents a hydrogen atom or a C_{1-6} alkyl radical, is reacted with a compound of general formula $HS—R'''$, wherein R''' represents an unsubstituted or at least mono-substituted phenyl radical, in a reaction medium, preferably in a dry aprotic reaction medium, more preferably in toluene, optionally in the presence of an organic base, preferably in the presence of an organic base selected from the group consisting of triethylamine, pyridine, diisopropylethylamine, dimethylaminopyridine and N -methylmorpholine, preferably at a temperature between -50°C . and 50°C ., preferably for 4 to 24 hours, to yield a compound of general formula XII, wherein R^1 , R^4 , R'' , R''' and X have the meaning given above.

[0788] In step 2 a compound of general formula XII is reacted with a compound of general formula III, wherein R^2 has the meaning given above, in a reaction medium, preferably in a protic reaction medium, more preferably in methanol, optionally in the presence of an inorganic base, preferably in the presence of $KHSO_4$, preferably at a temperature between 0°C . and 100°C ., preferably for 4 to 15 hours, to yield a compound of general formula XIII, wherein R^1 , R^2 , R^4 , R'' , R''' and X have the meaning given above.

[0789] In step 3 the compound of general formula XIII is cyclized intramolecularly in a reaction medium, preferably in a dry aprotic reaction medium, more preferably in dimethylformamide, preferably under an inert atmosphere, in the presence of a base, preferably in the presence of a metal hydride salt, more preferably in the presence of sodium hydride and/or potassium hydride to yield a compound of general formula IV. If R'' represents a C_{1-6} -alkyl radical, the compound of general formula IV, wherein R'' represents a hydrogen atom, is obtained after saponification of the cyclized compound according to methods known to those skilled in the art.

[0790] The sequence illustrated in scheme 1 is also described in, for example, Tetrahedron 2005, 81, 5235-5240 and Tetrahedron Asymmetry 2001, 12, 1923-1928. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

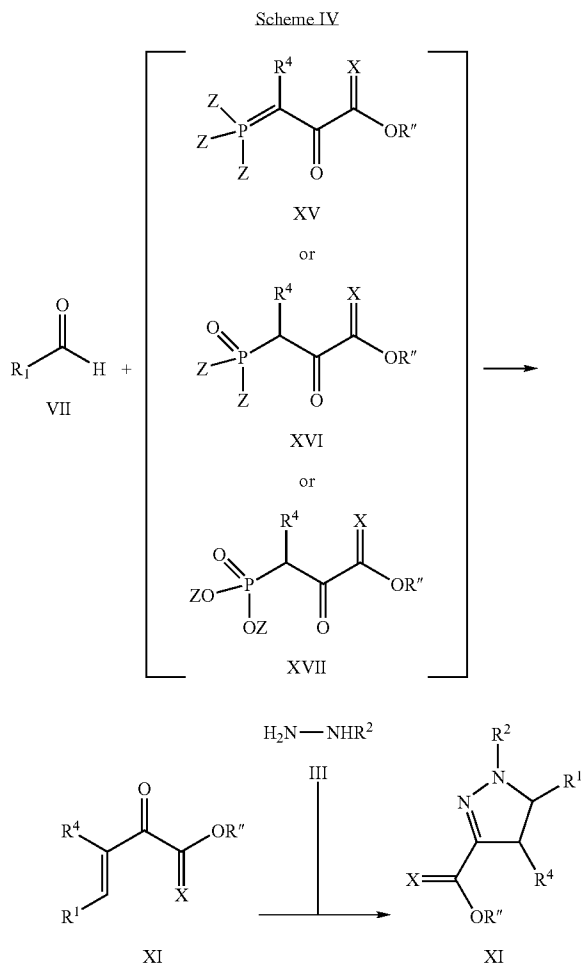
[0791] A compound of general formula IV can also be obtained as described in scheme III given below.



[0792] The compound of general formula XIV, wherein R¹, R⁴ and X have the meaning given above and R'' represents a hydrogen atom or a C₁₋₆-alkyl radical, is obtained by the bromination of a compound of general formula XI in a reaction medium, preferably in an aprotic reaction medium, more preferably in dichloromethane, with bromine at a temperature between 0° C. and 30° C. for several hours as described in Tetrahedron Lett. 1998, 39 (44), 8163-8166; J. Chem. Soc. Perkin Trans 1, 1999, 21, 3069-3070; Tetrahedron 1999, 55 (36), 11127-11142 and J. Heterocyclic Chem. 1986, 23, 1199. Preferably a compound of general formula XIV is reacted with bromine in the presence of an aprotic solvent, preferably in the presence of dichloromethane, at ambient temperature for 1 to 2 hours. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

[0793] The compound of general formula XIV is reacted with a compound of general formula III, wherein R² has the meaning given above, and cyclized intramolecularly in a reaction medium, preferably in a dry aprotic reaction medium, more preferably in dimethylformamide or in a mixture of dioxane, water and acetic acid, at a temperature between 0° C. and 250° C. to yield a compound of general formula IV as described in Chemistry of Heterocyclic Compounds 1997, 33(6); Indian J. Chem. 20B, 1981, 1090; Indian J. Chem. 29B, 1990, 887 and J. Indian Chem. Soc. 1997, 74(3), 202-205. The respective descriptions are hereby incorporated by reference and form part of the disclosure. If R'' represents a C₁₋₆-alkyl radical, the compound of general formula IV, wherein R'' represents a hydrogen atom, is obtained after saponification of the cyclized compound according to methods known to those skilled in the art.

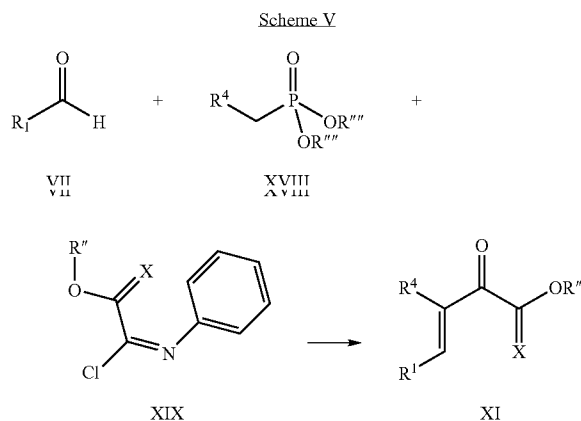
[0794] A compound of general formula IV can also be obtained by the process described in scheme IV.



[0795] An aldehyde of general formula VII, wherein R¹ has the meaning given above, is reacted with either a phosphonium ylide of general formula XV, a phosphine oxide of general formula XVI or a phosphonate of general formula XVII, wherein in each case R⁴ and X have the meaning given above, R'' represents a hydrogen atom or a C₁₋₆-alkyl radical and Z represents an unsubstituted or at least mono-substituted phenyl radical, in a reaction medium, preferably in an aprotic reaction medium, more preferably in Tetrahydrofuran, optionally in the presence of at least one base, preferably in the presence of a base selected from the group consisting of potassium tert-butyllat, n-butyllithium, sodium hydride and lithium diisopropylamide, to yield a compound of general formula XI which is reacted with a compound of general formula III, wherein R² has the meaning given above, and cyclized intramolecularly to yield a compound of general formula IV as described above. The process is also described in Tetrahedron 1994, 50 (44), 12727-12742 and Zhurnal Obshechi Khimii 1986, 56 (2), 347-353. The respective descriptions are hereby incorporated by reference and form part of the disclosure. If R'' represents a C₁₋₆-alkyl radical, the compound of general formula IV, wherein R'' represents a hydrogen atom, is

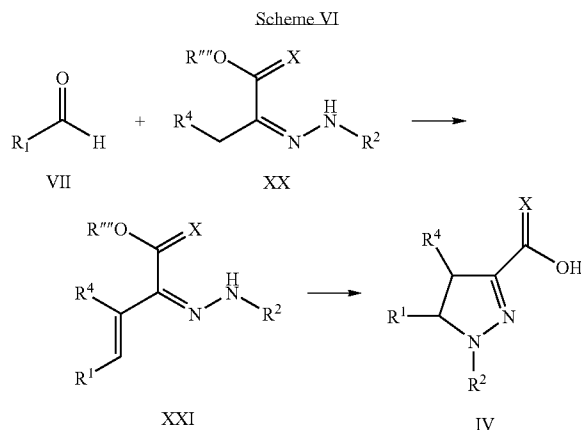
obtained after saponification of the cyclized compound according to methods known to those skilled in the art.

[0796] Another method for the preparation of compounds of general formula XI is illustrated in scheme V below.



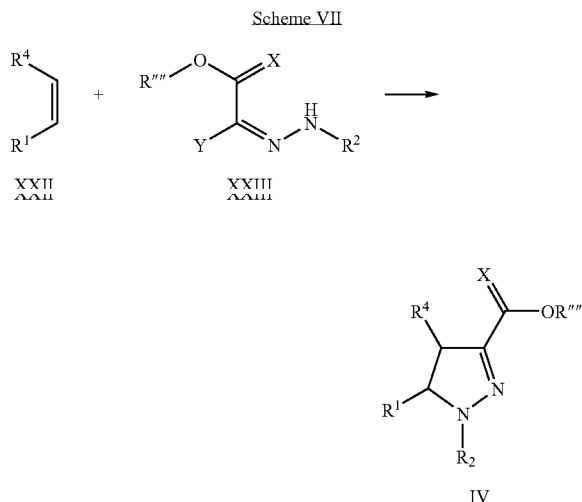
[0797] A compound of general formula VII, wherein R^1 has the meaning given above, is reacted with a phosphonate of general formula XVIII, wherein R^4 has the meaning given above and R''' represents a C_{1-6} -alkyl radical, preferably an ethyl radical, and a compound of general formula XIX, wherein X has the meaning given above and R'' represents a hydrogen atom or a C_{1-6} -alkyl radical to yield a compound of general formula XI, wherein R^1 , R^4 , X and R'' have the meaning given above. The process is described in J. Chem. Soc. Perkin Trans 1, 1995, 741-742. Preferably the reaction is carried out by the addition of phosphonate of general formula XVIII to a solution of n-butyllithium in a dry reaction medium, preferably in Tetrahydrofuran, at a temperature between -100°C . and -50°C ., followed by the addition of N-phenylaloxycarbonylacetimidoyl chloride of general formula XIX and aldehyde of general formula VII and stirring at a temperature between 0°C . and 30°C . for several hours. The respective description is hereby incorporated by reference and forms part of the disclosure.

[0798] A compound of general formula IV can also be obtained according to the process described in scheme VI.



[0799] A compound of general formula VII, wherein R^1 has the meaning given above, is reacted with a compound of general formula XX, wherein R^2 , R^4 and X have the meaning given above and R''' represents a C_{1-6} -alkyl radical, is reacted in a reaction medium, preferably in ethanol, in the presence of a base, preferably sodium acetate, at a temperature between 30°C . and 90°C ., or in a reaction medium, preferably in ethanol, in the presence of glacial acetic acid at a temperature between 0°C . and 50°C . to yield a compound of general formula XXI, wherein R^1 , R^2 , R^4 and X have the meaning given above and R''' represents a C_{1-6} -alkyl radical. The compound of general formula XXI is converted into the compound of general formula IV in a reaction medium, preferably in ethanol and/or water, in the presence of an acid, preferably in the presence of hydrochloric acid, at a temperature between 50°C . and 120°C . to yield a compound of general formula IV. The process is described in J. Chem. Engineering Data 1984, 29(2), 225-229 and Indian J. Chem. 27B, 1988, 3, 245-249. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

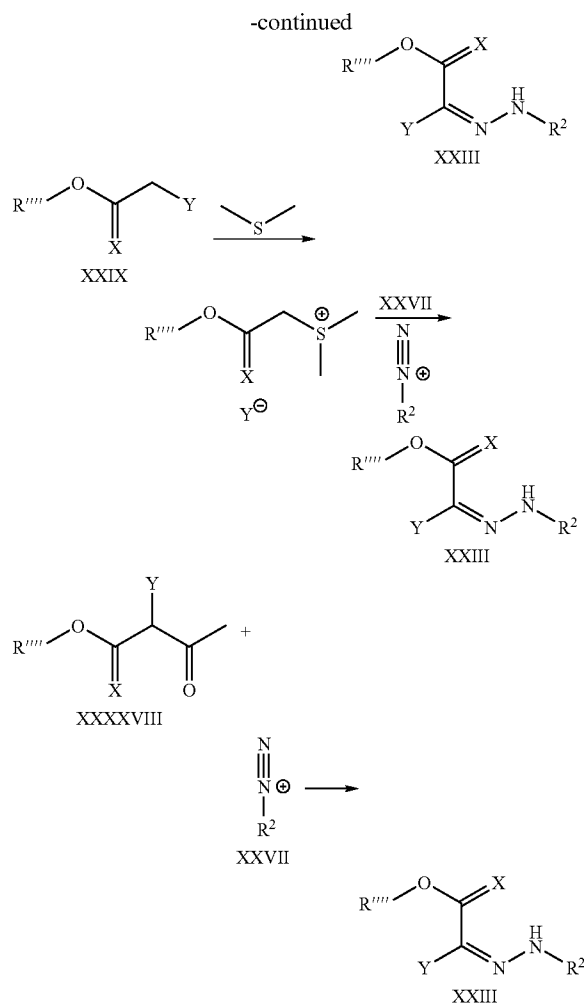
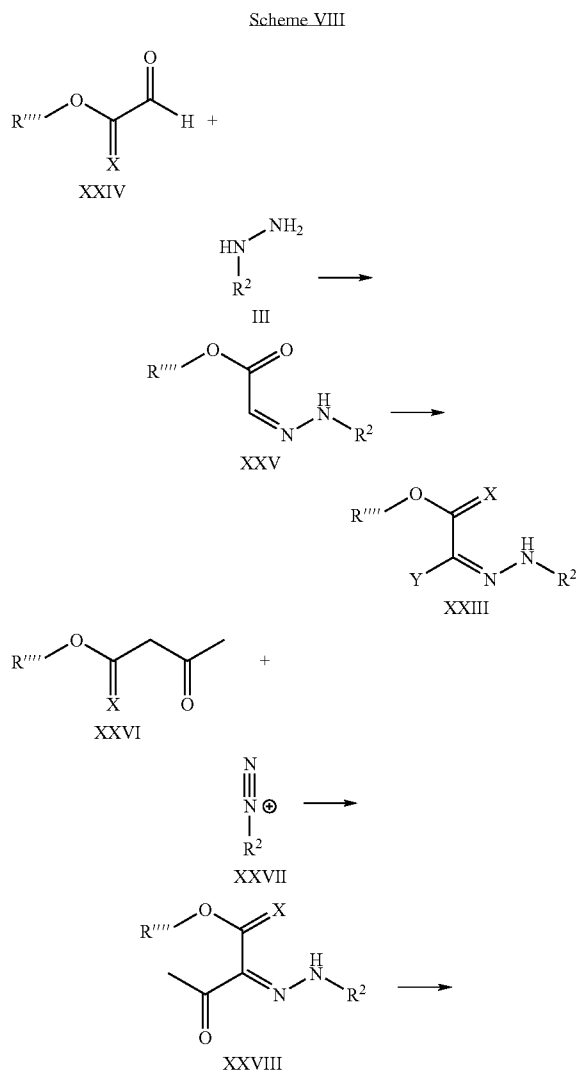
[0800] A compound of general formula IV can also be obtained according to the process described in scheme VII. Said process is also described in WO88/005046. The respective description is hereby incorporated by reference and forms part of the disclosure.



[0801] A compound of general formula XXII, wherein R^1 and R^4 have the meaning given above, is reacted with a compound of general formula XXIII, wherein R^2 and X have the meaning given above, R''' represents a C_{1-6} -alkyl radical and Y represents a chlorine or bromine atom, in a reaction medium, preferably in an aprotic or protic reaction medium, more preferably in toluene and/or chloroform and/or ethanol, in the presence of a base, preferably an organic base, more preferably an organic base selected from the group consisting of triethylamine, pyridine, diisopropylethylamine, dimethylaminopyridine, 1,4-diazabicyclo[2.2.2]octane and N-methylmorpholine, at a temperature between 0°C . and 150°C . to yield a compound of general formula IV. If regioisomers are obtained during the reaction, these regioisomers can be separated by conventional chromatographic techniques. The compound of general formula IV, wherein R''' represents a C_{1-6} -alkyl radical is converted into the corresponding acid by using standard methods which are

known to those skilled in the art. The process is disclosed in Bull. Chem. Soc. Japan 1984, 57 (3), 787-790 and Chem. Lett. 1982, 543-546. The respective descriptions are hereby incorporated by reference and form part of the disclosure. The method as depicted in scheme VII is stereospecific. Thus, using (E)-olefins of general formula XII compounds of general formula IV are obtained, wherein the radicals R¹ and R⁴ on the pyrazoline ring are orientated trans to one another. Starting from (Z)-olefins the respective pyrazolines with cis-configuration are obtained. The racemates of pyrazoline compounds with either trans- or cis-configuration can be separated by conventional methods including chiral HPLC separation and separation via the formation of diastereomeric salts. Thus, enantiomerically pure compounds are obtained (ee>99%). The configuration of compounds of general formula IV is maintained during the subsequent reaction steps, thus leading to enantiomerically pure compounds of general formula I (ee>99%).

[0802] The compound of general formula XXIII can be prepared according to the processes described in scheme VIII.



[0803] The compound of general formula XXIV, wherein X has the meaning given above and R^{''''} represents a C₁₋₆-alkyl radical, is reacted in a reaction medium, preferably in a mixture of water and ethanol, in the presence of at least one acid, preferably in the presence of acetic acid, at a temperature between 70° C. and 120° C. with a compound of general formula III, wherein R² has the meaning given above, to yield a compound of general formula XXV, wherein R² and X have the meaning given above and R^{''''} represents a C₁₋₆-alkyl radical, which is reacted with N-chloro-succinimide or N-bromo-succinimide in a reaction medium, preferably in an aprotic reaction medium, more preferably in dimethylformamide, at a temperature between 0° C. and 30° C., to yield a compound of general formula XXIII. The process is described in Synth. Commun. 2001, 31(1), 111-115 and Tetrahedron 1994, 50 (25), 7543-7556. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

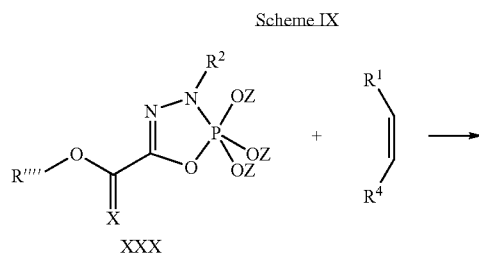
[0804] The compound of general formula XXIII can also be prepared by the reaction of a compound of general formula XXVI, wherein X has the meaning given above and R^{''''} represents a C₁₋₆-alkyl radical, with a compound of general formula XXVII, wherein R² has the meaning given above and subsequent bromination of the resulting compound of general formula XXVIII, wherein R² and X have

the meaning given above and R^{'''} represents a C₁₋₆-alkyl radical, by using bromine in the presence of acetic acid as described in Synthesis 1975, 333 and J. Chem. Soc. Perkin Trans. 1, 1977, 2092. The diazonium salt of general formula XXVII can preferably be obtained by the addition of an aqueous solution of sodium nitrite to a compound of general formula R²-NH₂ in aqueous hydrochloride acid, wherein R² has the meaning given above. Alternatively this transformation can also be achieved in the presence of a compound of general formula XXVI by adjusting the pH of the reaction medium to 4 by the addition of sodium acetate at a temperature between 0° C. and 30° C. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

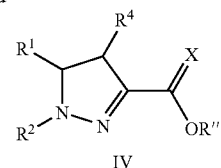
[0805] The compound of general formula XXIII can also be prepared by the reaction of a compound of general formula XXIX, wherein X has the meaning given above, R^{'''} represents a C₁₋₆-alkyl radical and Y represents a chlorine or bromine atom, with dimethylsulfide, in a reaction medium, preferably in ethanol, at a temperature between 70° C. and 120° C. Optionally the dimethylsulfonium salt is isolated and further reacted with a compound of general formula XXVII, wherein R² has the meaning given above, in the presence of sodium acetate and acetic acid at a temperature between 0° C. and 30° C. as described in Heterocycles 1991, 32(6), 1101-1107. The respective description is hereby incorporated by reference and forms part of the disclosure.

[0806] The compound of general formula XXIII can also be prepared by the reaction of a compound of general formula XXXVIII, wherein X has the meaning given above, R^{'''} represents a C₁₋₆-alkyl radical and Y represents a leaving group, preferably a leaving group selected from the group consisting of chlorine and bromine, with a compound of general formula XXVII, wherein R² has the meaning given above, in the presence of a protic solvent, preferably in the presence of a protic solvent selected from the group consisting of methanol and ethanol, or in the presence of an aprotic solvent, preferably in the presence of tetrahydrofuran, in the presence of a base, preferably in the presence of sodium acetate, or in the presence of an acid, preferably in the presence of acetic acid. The method is described in J. Chem. Soc. Perkin Transaction 1 1998, 24, 4103-4106; Tetrahedron Asymmetry 2000, 11(9), 1975-1983; Tetrahedron 1998, 54(49), 14859-14868; Synthesis 1996, 9, 1076-1078 and Synthesis 1995, 12, 1483-1484. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

[0807] Another method for the preparation of a compound of general formula IV is described in scheme IX.



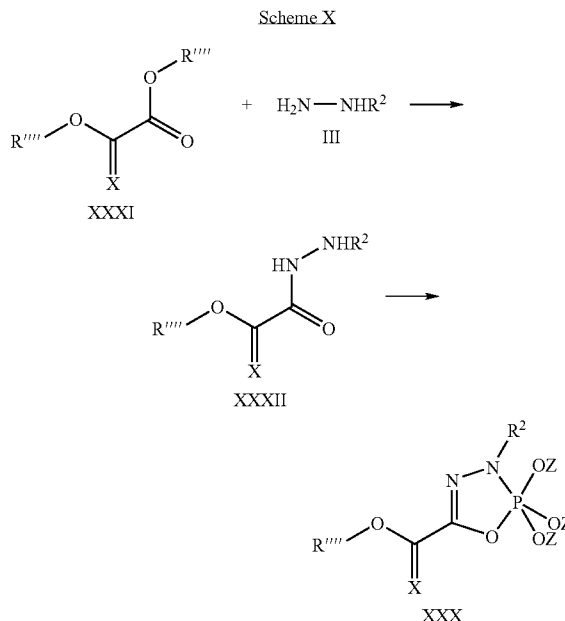
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[0808] A compound of general formula XXX, wherein R² and X have the meaning given above, Z represents an unsubstituted or at least mono-substituted phenyl radical, preferably an unsubstituted phenyl radical, and R^{'''} represents a C₁₋₆-alkyl radical, preferably an ethyl radical, is reacted with a compound of general formula XXII, wherein R¹ and R⁴ have the meaning given above, in a reaction medium, preferably in xylene, at a temperature between 50° C. and 200° C. for 2 to 30 hours to yield a compound of general formula IV. The process is described in Chem. Lett. 1983, 507-510 and Bull. Chem. Soc. Japan 1984, 57(9), 2689-2690. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

[0809] The compound of general formula IV, wherein R^{'''} represents a C₁₋₆-alkyl radical, is converted into the corresponding acid by using standard methods which are known to those skilled in the art.

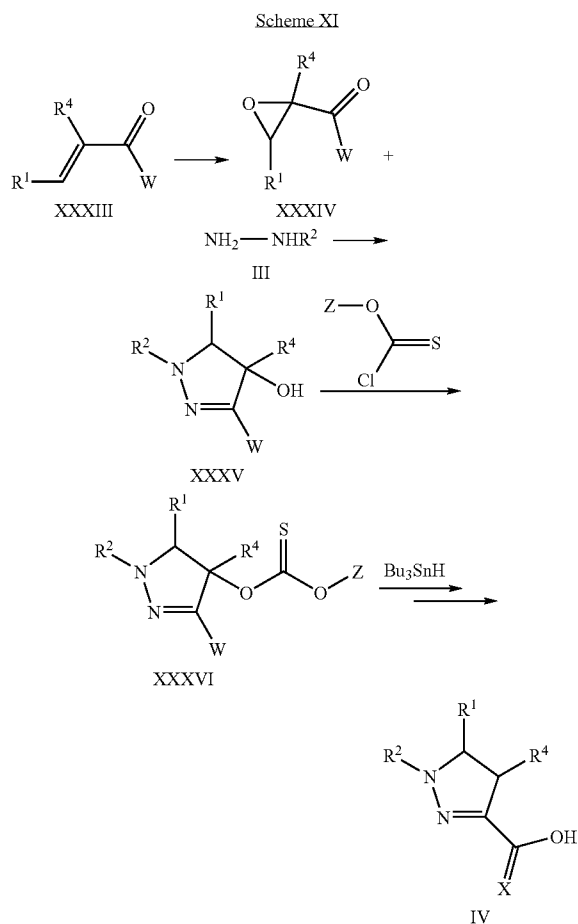
[0810] A process for the preparation of a compound of general formula XXX is described in scheme X.



[0811] A compound of general formula XXXI, wherein X has the meaning given above and R^{'''} is a C₁₋₆-alkyl radical, is reacted with a compound of general formula III, wherein R² has the meaning given above, to yield a compound of general formula XXXII, wherein R² and X have the meaning given above and R^{'''} represents a C₁₋₆-alkyl radical. Subsequently, the compound of general formula XXXII is reacted with phosphorous pentachloride or POCl₃ in a reaction medium, preferably in toluene, at a temperature between 0° C. and 50° C., followed by the addition of a

phenolic compound, preferably O-trimethylsilyl-p-cresol, in refluxing toluene to yield a compound of general formula XXX.

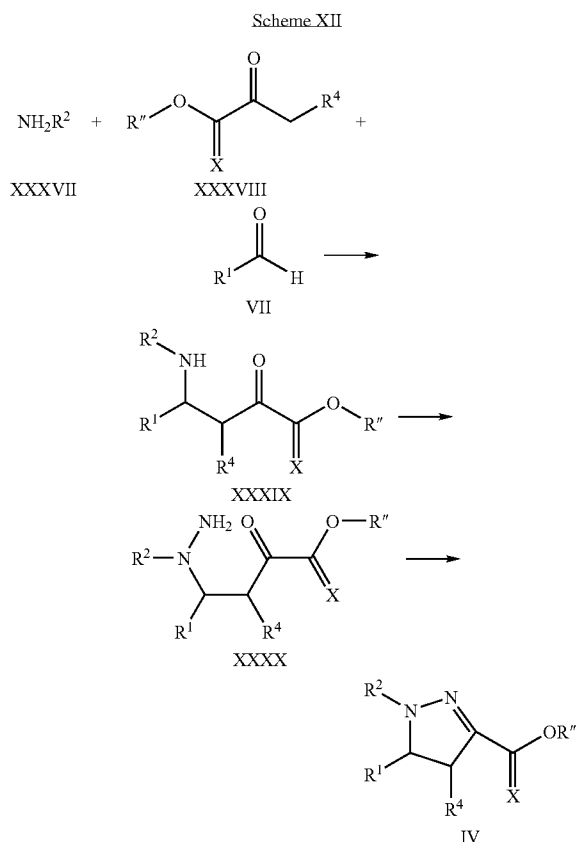
[0812] Another method for the preparation of a compound of general formula IV is described in scheme XI.



[0813] A compound of general formula XXXIII, wherein R^1 and R^4 have the meaning given above and W represents $-C(=X)-OH$, $-C(=X)-OR''''$ or $-CN$, whereby X has the meaning given above and R'''' represents a C_{1-6} -alkyl radical, is converted to a compound of general formula XXXIV, wherein R^1 , R^4 and W have the meaning given above, by means of epoxidation with a reagent selected from the group consisting of perbenzoic acid, preferably m-chloro-perbenzoic acid, sodium peroxocarbonate, hydrogen peroxide, dioxirane and hydroperoxide. The compound of general formula XXXIV is reacted with a compound of general formula III, wherein R^2 has the meaning given above, in a reaction medium, preferably in ethanol, to yield a compound of general formula XXXV, wherein R^1 , R^2 , W and R^4 have the meaning given above. Subsequently, the compound of general formula XXXV is converted into the corresponding xanthate of general formula XXXVI, wherein R^1 , R^2 , W and R^4 have the meaning given above, by reaction with an unsubstituted or at least mono-substituted phenylthionochloroformate of general formula $ZO-C(=S)-Cl$, wherein Z represents an unsubstituted or at least mono-substituted phenyl radical. The compound of general formula XXXVI is reacted with tributyltinhydride optionally followed by saponification and/or hydrolysis to yield a compound of general formula IV, wherein R^1 , R^2 , X and R^4

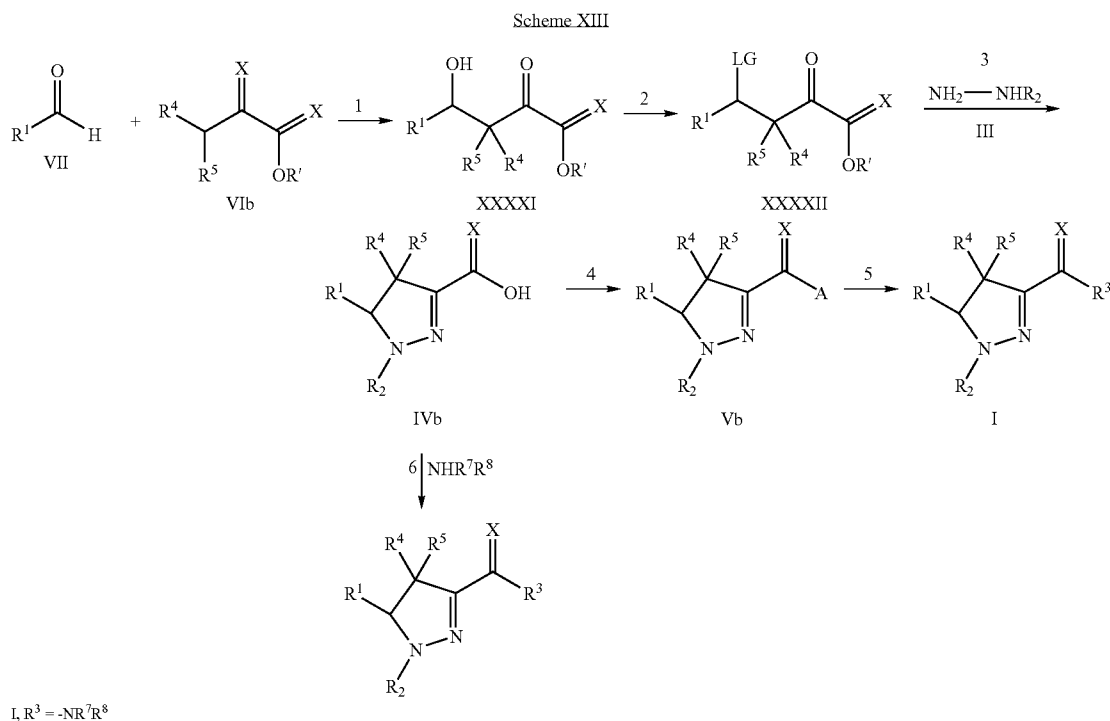
have the meaning given above. The process is described in Synlett 1990, 11, 705-706. The respective description is hereby incorporated by reference and forms part of the disclosure.

[0814] Yet another method for the preparation of a compound of general formula IV is described in scheme XII.



[0815] A compound of general formula XXXVII, wherein R^2 has the meaning given above, is reacted with a compound of general formula XXXVIII, wherein R^4 and X have the meaning given above and R'' represents a hydrogen atom or a C_{1-6} -alkyl radical, and a compound of general formula VII, wherein R^1 has the meaning given above, to yield a compound of general formula XXXIX, wherein R^1 , R^2 , R^4 and X have the meaning given above and R'' represents a hydrogen atom or a C_{1-6} -alkyl radical. The compound of general formula XXXIX is converted into the compound of general formula XXXX by using O-substituted hydroxylamines according to the method described in J. Org. Chem. 2002, 67, 6237-6239. The respective description is hereby incorporated by reference and forms part of the disclosure. Alternatively, this transformation can be achieved by using nitrites and subsequent reduction according to methods known to those skilled in the art. Upon cyclization of a compound of general formula XXXX according to the methods described above a compound of general formula IV is obtained. If R'' represents a C_{1-6} -alkyl radical, the compound of general formula IV, wherein R'' represents hydrogen, is obtained after saponification of the cyclized compound according to methods known to those skilled in the art.

[0816] In case R^5 is unlike hydrogen the reaction sequence given in Scheme I is adapted as follows.



[0817] In step 1 a compound of general formula VIb or a corresponding enolate of said compound is reacted with a compound of general formula VII in a reaction medium, preferably in a protic reaction medium, more preferably in a reaction medium selected from the group consisting of methanol, ethanol, isopropanol, n-butanol, water and mixtures thereof, in the presence of at least one base, preferably in the presence of an alkali metal hydroxide such as sodium hydroxide or potassium hydroxide or an alkali metal methoxide such as sodium methoxide or in the presence of lithium diisopropylamide in an aprotic solvent, preferably in tetrahydrofuran.

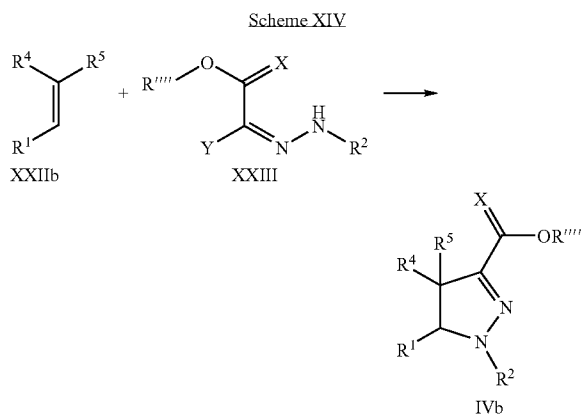
[0818] In step 2 a compound of general formula XXXXI is transformed into a compound of general formula XXXXII which contains a good leaving group LG, preferably a leaving group selected from the group consisting of mesyl and tosyl, using conventional methods known to those skilled in the art.

[0819] In step 3 a compound of general formula XXXXII is reacted with a compound of general formula III in a reaction medium, preferably in a reaction medium selected from the group consisting of methanol, ethanol, isopropanol, n-butanol, diethylether, tert-butyl-methylether, dioxane, tetrahydrofuran or mixtures of at least two of these afore mentioned reaction media. Also preferably, said reaction may be carried out in the presence of an acid, whereby the acid may be organic such as acetic acid and/or inorganic such as hydrochloric acid. Alternatively the reaction may also be carried out in the presence of a base such as piperidine, piperazine, sodium hydroxide, potassium hydroxide, sodium methoxide or sodium ethoxide or mixtures of at least two of these bases. Reaction temperature as

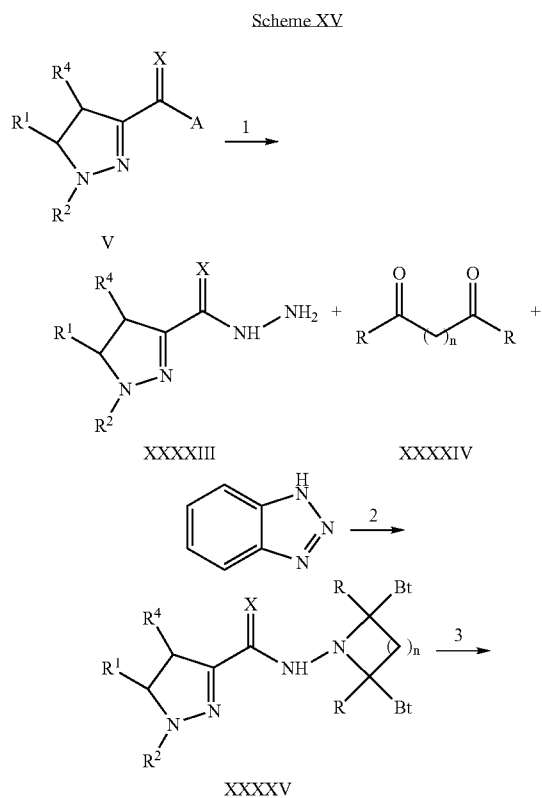
well as the duration of the reaction may vary over a broad range. Suitable reaction temperatures range from room temperature, i.e. approximately 25° C. to the boiling point of the reaction medium. Suitable reaction times may vary for example from several minutes to several hours.

[0820] Step 4 can be carried out as described for step 3, scheme 1; step 5 can be carried out as described for step 4, scheme 1 and step 6 can be carried out as described for step 5, scheme 1.

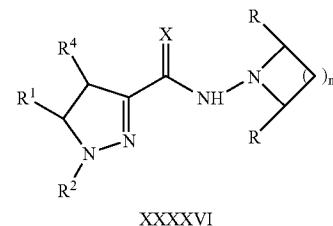
[0821] The compounds of general formula 1, wherein R⁵ is unlike hydrogen, can also be obtained by the reaction sequence described in scheme XIV.



[0822] The reaction is carried out as described for the analogues reaction depicted in scheme VII. If a mixture of regioisomers is obtained, said regioisomers can be separated by standard methods known to those skilled in the art, e. g. chromatographic methods or crystallization. The process is disclosed in Bull. Chem. Soc. Japan 1984, 57 (3), 787-790. The respective description is hereby incorporated by reference and forms part of the disclosure. The compounds of general formula I, wherein R³ represents —NR⁷R⁸, can also be obtained by the reaction sequence described in scheme XV.



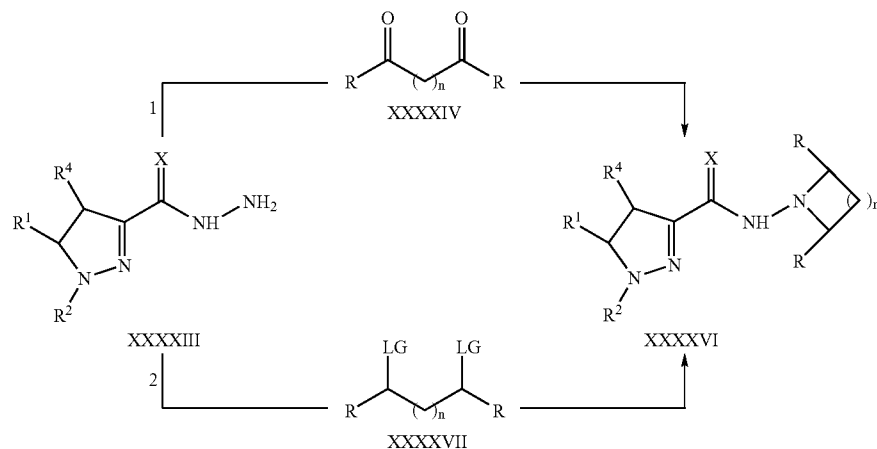
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[0823] In step 1 a compound of general formula V is reacted with hydrazine hydrate in the presence of an aprotic or protic solvent, preferably in the presence of ethanol, at reflux temperature to yield a compound of general formula XXXXIII, wherein R¹, R², R⁴ and X have the meaning as defined above.

[0824] In step 2 a compound of general formula XXXXIII is reacted with a compound of general formula XXXXIV, wherein R represents a hydrogen atom or a linear or branched C₁₋₁₂alkyl radical and n is 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10, in the presence of benzotriazole to yield a compound of general formula XXXXV, wherein R, n, R¹, R², R⁴ and X have the meaning as defined above and Bt represents a benzotriazolyl radical. A compound of general formula XXXXV can be transformed into a compound of general formula XXXXVI, wherein R, n, R¹, R², R⁴ and X have the meaning as defined above, in the presence of a reducing agent, preferably in the presence of sodium borohydride, in the presence of an aprotic solvent, preferably in the presence of tetrahydrofuran. Alternatively, the benzotriazole moiety in compounds of general formula XXXXV can be replaced by a linear or branched C₁₋₁₀alkyl group via reaction with the respective alkyl Grignard reagents. The process is disclosed J. Org. Chem. 1990, 55, 3205-3209. The respective description is hereby incorporated by reference and forms part of the disclosure.

[0825] The compounds of general formula 1, wherein R³ represents —NR⁷R⁸, can also be obtained by the reaction sequence described in scheme XVI.

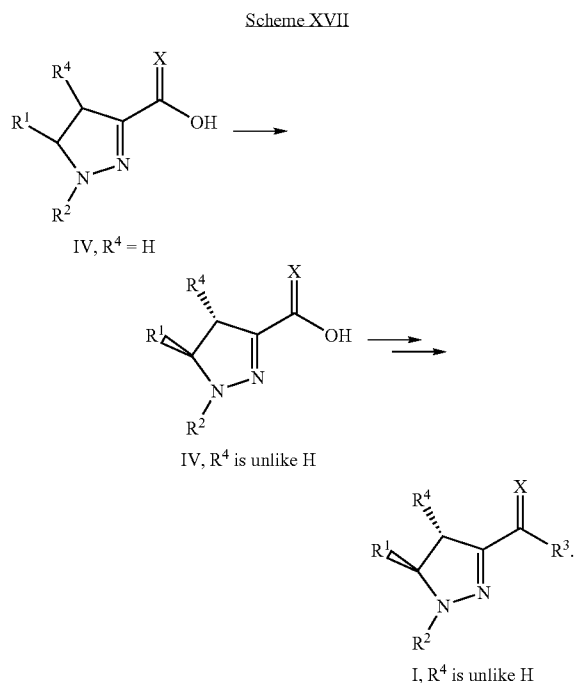


Scheme XVI.

[0826] In step 1 a compound of general formula XXXXIII is reacted with a compound of general formula XXXXIV, wherein R represents a hydrogen atom or a linear or branched C₁₋₁₂alkyl radical and n is 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10, in the presence of a reducing agent, preferably in the presence of a reducing agent selected from the group consisting of sodium borohydride, sodium cyanoborohydride or triacetoxyborohydride, to yield a compound of general formula XXXXVI, wherein R, n, R¹, R², R⁴ and X have the meaning as defined above.

[0827] In step 2 a compound of general formula XXXXIII is reacted with a compound of general formula XXXXVII, wherein R represents a hydrogen atom or a linear or branched C₁₋₁₂alkyl radical, n is 0, 1, 2, 3, 4, 5, 6, 7, 8, 9 or 10 and LG represents a leaving group, preferably a leaving group selected from the group consisting of chlorine and bromine, more preferably LG represents bromine, in the presence of a base, preferably in the presence of potassium carbonate, to yield a compound of general formula XXXXVI, wherein R, n, R¹, R², R⁴ and X have the meaning as defined above.

[0828] The compounds of general formula I can also be obtained by the reaction sequence described in scheme XVII.



[0829] A compound of general formula IV, wherein R⁴ represents hydrogen and R¹, R² and X have the above defined meaning, is transformed into a compound of general formula IV, wherein R⁴ is unlike hydrogen and R¹, R², R⁴ and X have the above defined meaning, in the presence of a base, preferably in the presence of a base selected from the group consisting of sodium hydride, lithium diisopropyl-

amide and lithium hexamethyldisilazide, in the presence of an aprotic solvent, preferably in the presence of an aprotic solvent selected from the group consisting of tetrahydrofuran, dichloromethane and chloroform, and in the presence of a compound of general formula R⁴-X, wherein R⁴ has the above defined meaning, preferably R⁴ represents a linear or branched C₁₋₁₀alkyl radical or CN, and X represents a leaving group, preferably a leaving group selected from the group consisting of bromine and iodine. The compounds of general formula IV, wherein R⁴ is unlike hydrogen, are obtained as racemates, and can be separated by conventional methods including HPLC and separation via formation of diastereomeric salts. The compounds of general formula IV can be transformed into compounds of general formula I while retaining the absolute configuration of the compounds of general formula 1.

[0830] A compound of general formula IV, wherein both R⁴ and R⁵ are different from hydrogen and R¹, R⁴, R² and X have the above defined meaning, can be prepared from compounds of general formula IV, wherein R⁵ is hydrogen, R⁴ is unlike hydrogen and R¹, R⁴, R² and X have the above defined meaning, and a compound of general formula R⁵-X, wherein R⁵ has the above defined meaning, preferably R⁵ represents a linear or branched C₁₋₁₀alkyl radical or CN, and X represents a leaving group, preferably a leaving group selected from the group consisting of bromine and iodine, by applying the same method as described in scheme XVII.

[0831] Compounds of general formula I, wherein X represents O, can be transformed in the corresponding compound, wherein X represents S, by reacting the first compound with a dithiaphosphetane, preferably with 2,4-bis(4-methoxyphenyl)-1,3,2,4-dithiadiphosphetan-2,4-disulfide (Lawesson reagent) or phosphorous pentasulfide, in a reaction medium, preferably in a reaction medium selected from the group consisting of toluene, xylene, acetonitrile, dichloromethane and dimethylformamide, at a temperature between 50° C. to 150° C.

[0832] The afore mentioned reactions involving the synthesis of the 4,5-dihydro-pyrazole ring or the reaction of a compound comprising said ring are preferably carried out under an inert atmosphere, preferably under a nitrogen or argon atmosphere, to avoid oxidation of the ring-system.

[0833] During some synthetic reactions described above the protection of sensitive or reactive groups may be necessary and/or desirable. This can be performed by using conventional protective groups like those described in Protective groups in Organic Chemistry, ed. J. F. W. McOmie, Plenum Press, 1973; T. W. Greene & P. G. M. Wuts and Protective Groups in Organic Chemistry, John Wiley & sons, 1991. The respective parts of the description is hereby incorporated by reference and forms part of the disclosure. The protective groups may be eliminated when convenient by means well-known to those skilled in the art.

[0834] If the 4-substituted pyrazole compounds of general formula I are obtained in form of a mixture of stereoisomers, particularly enantiomers or diastereomers, said mixtures may be separated by standard procedures known to those skilled in the art, e.g. chromatographic methods or crystallization with chiral reagents. It is also possible to obtain pure stereoisomers via stereoselective synthesis.

[0835] In a further aspect the present invention also provides a process for the preparation of salts of 4-substituted

pyrazoline compounds of general formula I and stereoisomers thereof, wherein at least one compound of general formula I having at least one basic group is reacted with at least one inorganic and/or organic acid, preferably in the presence of a suitable reaction medium. Suitable reaction media include, for example, any of the ones given above. Suitable inorganic-acids include hydrochloric acid, hydrobromic acid, phosphoric acid, sulfuric acid, nitric acid, suitable organic acids are e.g. citric acid, maleic acid, fumaric acid, tartaric acid, or derivatives thereof, p-toluene-sulfonic acid, methanesulfonic acid or camphersulfonic acid.

[0836] In yet a further aspect the present invention also provides a process for the preparation of salts of 4-substituted pyrazoline compounds of general formula I or stereoisomers thereof, wherein at least one compound of general formula I having at least one acidic group is reacted with one or more suitable bases, preferably in the presence of a suitable reaction medium. Suitable bases are e.g. hydroxides, carbonates or alkoxides, which include suitable cations, derived e.g. from alkaline metals, alkaline earth metals or organic cations, e.g. $[\text{NH}_n\text{R}_{4-n}]^+$, wherein n is 0, 1, 2, 3 or 4 and R represents a branched or unbranched C_{1-4} -alkyl-radical. Suitable reaction media are, for example, any of the ones given above.

[0837] In the presence of several acidic or basic groups, mono- or poly-salts may be formed. Compounds of the formula I having an acidic group, for example a free carboxyl group, and a basic group, for example an amino group, may also be present in the form of inner salts, i.e., in zwitterionic form, or a part of the molecule may be present in the form of an inner salt and another part in the form of a normal salt.

[0838] Solvates, preferably hydrates, of the 4-substituted pyrazoline compounds of general formula I, of corresponding stereoisomers, of corresponding N-oxides or of corresponding salts thereof may also be obtained by standard procedures known to those skilled in the art.

[0839] 4-Substituted pyrazoline compounds of general formula I, which comprise nitrogen-atom containing saturated, unsaturated or aromatic rings may also be obtained in the form of their N-oxides by methods well known to those skilled in the art.

[0840] The purification and isolation of the inventive 4-substituted pyrazoline compounds of general formula I, of a corresponding stereoisomer, or salt, or N-oxide, or solvate or any intermediate thereof may, if required, be carried out by conventional methods known to those skilled in the art, e.g. chromatographic methods or recrystallization.

[0841] The compounds of general formula I given above may also act as prodrugs, i.e. they represent a drug precursor, which following administration to a patient releases a drug in vivo via some kind of chemical and/or physiological process (e.g., a prodrug on being brought to a physiological pH and/or through an enzyme action is converted to a desired drug form; see, e.g., R. B. Silverman, 1992, "The Organic Chemistry of Drug Design and Drug Action", Academic Press, Chp. 8). In particular, the compounds of general formula I give rise to a compound of general formula I, wherein R^3 represents a $-\text{OH}$ moiety, upon administration to a patient.

[0842] Prodrugs can be used to alter the biodistribution (e.g., to allow compounds which would not typically enter the reactive site of the protease) or the pharmacokinetics for a particular compound. For example, a hydroxyl group, can be esterified, e.g., with a carboxylic acid group to yield an ester. When the ester is administered to a subject, the ester is cleaved, enzymatically or non-enzymatically, reductively or hydrolytically, to reveal the hydroxyl group.

[0843] The 4-substituted pyrazoline compounds of general formula I given above, their stereoisomers, corresponding N-oxides, corresponding salts thereof and corresponding solvates are toxicologically acceptable and are therefore suitable as pharmaceutical active substances for the preparation of medicaments.

[0844] It has been found that the 4-substituted pyrazoline compounds of general formula I given above, stereoisomers thereof, N-oxides thereof, corresponding salts and corresponding solvates have a high affinity to cannabinoid receptors, particularly cannabinoid 1 (CB_1)-receptors, i.e. they are selective ligands for the CB_1 -receptor and act as modulators, e.g. antagonists, inverse agonists or agonists, on these receptors. In particular, these pyrazoline compounds show little or no development of tolerance during treatment, particularly with respect to food intake, i.e. if the treatment is interrupted for a given period of time and then continued afterwards, the inventively used pyrazoline compounds will again show the desired effect. After ending the treatment with the pyrazoline compounds, the positive influence on the body weight is found to continue.

[0845] Furthermore, these 4-substituted pyrazoline compounds show relatively weak Herg channel affinity, thus a low risk of prolongation of the QT-interval is to be expected for these compounds.

[0846] In summary, the inventively used 4-substituted pyrazoline compounds are distinguished by a broad spectrum of beneficial effects, while at the same time showing relatively little undesired effects, i.e. effects which do not positively contribute to or even interfere with the well being of the patient.

[0847] Thus, an other aspect of the present invention relates to a medicament comprising at least one 4-substituted pyrazoline compound of general formula I including the aforementioned excluded compounds, optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof, and optionally at least one physiologically acceptable auxiliary agent.

[0848] Preferably said medicament is suitable for the modulation (regulation) of cannabinoid-receptors, preferably cannabinoid 1 (CB_1) receptors, for the prophylaxis and/or treatment of disorders of the central nervous system, disorders of the immune system, disorders of the cardiovascular system, disorders of the endocrinous system, disorders of the respiratory system, disorders of the gastrointestinal tract or reproductive disorders.

[0849] Particularly preferably said medicament is suitable for the prophylaxis and/or treatment of psychosis.

[0850] Also particularly preferably said medicament is suitable for the prophylaxis and/or treatment of food intake disorders, preferably bulimia, anorexia, cachexia, obesity and/or type II diabetes mellitus (non-insuline dependent diabetes mellitus), more preferably obesity. The inventive medicament also seems to be active in the prophylaxis and/or treatment of appetency disorders, e.g. the pyrazoline compounds of general formula I also reduce the desire for sweets.

[0851] Also particularly preferably said medicament is suitable for the prophylaxis and/or treatment of cancer, preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of brain cancer, bone cancer, lip cancer, mouth cancer, esophageal cancer, stomach cancer, liver cancer, bladder cancer, pancreas cancer, ovary cancer, cervical cancer, lung cancer, breast cancer, skin cancer, colon cancer, bowel cancer and prostate cancer, more preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of colon cancer, bowel cancer and prostate cancer.

[0852] Particularly preferably said medicament is suitable for the prophylaxis and/or treatment of alcohol abuse and/or alcohol addiction, nicotine abuse and/or nicotine addiction, drug abuse and/or drug addiction and/or medicament abuse and/or medicament addiction, preferably drug abuse and/or drug addiction and/or nicotine abuse and/or nicotine addiction.

[0853] Thus the inventive medicament is active in the treatment of abstinence, craving reduction and relapse prevention of alcohol intake. The inventive medicament can also be used in the prophylaxis and/or treatment of smoking addiction, cessation and/or dependence including treatment for craving reduction and relapse prevention of tobacco smoking.

[0854] Medicaments and/or drugs, which are frequently the subject of misuse include opioids, barbiturates, cannabis, cocaine, amphetamines, phencyclidine, hallucinogens and benzodiazepines.

[0855] The medicament is also suitable for the prophylaxis and/or treatment of one or more disorders selected from the group consisting of bone disorders, preferably osteoporosis (e.g. osteoporosis associated with a genetic predisposition, sex hormone deficiency, or ageing), cancer-associated bone disease or Paget's disease of bone; schizophrenia, anxiety, depression, epilepsy, neurodegenerative disorders, cerebellar disorders, spinocerebellar disorders, cognitive disorders, cranial trauma, head trauma, stroke, panic attacks, peripheral neuropathy, inflammation, glaucoma, migraine, Morbus Parkinson, Morbus Huntington, Morbus Alzheimer, Raynaud's disease, tremblement disorders, compulsive disorders, senile dementia, thymic disorders, tardive dyskinesia, bipolar disorders, medicament-induced movement disorders, dystonia, endotoxemic shock, hemorrhagic shock, hypotension, insomnia, immunologic disorders, sclerotic plaques, vomiting, diarrhea, asthma, memory disorders, pruritus, pain, or for potentiation of the analgesic effect of narcotic and non-narcotic analgesics, or for influencing intestinal transit.

[0856] The medicament is also suitable for the prophylaxis and/or treatment of one or more disorders selected from the group consisting of dementia and related disorders, prefer-

ably for the prophylaxis and/or treatment of one or more types of dementia selected from the group consisting of memory loss, vascular dementia, mild cognitive impairment, frontotemporal dementia and Pick's disease; binge eating disorders; juvenile obesity; drug induced obesity; atypical depression; behavioural addictions; attention deficit disorders; Tourette's syndrome; suppression of reward-related behaviours; e.g. conditioned place avoidance such as suppression of cocaine- and morphine induced conditioned place preference; impulsivity; sexual dysfunction; preferably for the prophylaxis and/or treatment of one or more types of sexual dysfunction selected from the group consisting of erectile difficulty and female sexual dysfunction; seizure disorders; nausea; emesis; neuroinflammatory disease, preferably for the prophylaxis and/or treatment of one or more types of neuroinflammatory diseases selected from the group consisting of multiple sclerosis, demyelination related disorders, Guillan-Barré syndrome, viral encephalitis and cerebrovascular accidents; neurological disorders; muscle spasticity; traumatic brain injury; spinal cord injury; inflammation and immunomodulatory disorders, preferably for the treatment and/or prophylaxis of one or more types of inflammation and immunomodulatory disorders selected from the group consisting of cutaneous T-cell lymphoma, rheumatoid arthritis, systemic lupus erythematosus, sepsis, sarcoidosis, idiopathic pulmonary fibrosis, bronchopulmonary dysplasia, retinal disease, scleroderma, renal ischemia, myocardial infarction, cerebral ischemia, nephritis, hepatitis, glomerulonephritis, cryptogenic fibrosing aveolitis, psoriasis, transplant rejection, atopic dermatitis, vasculitis, allergy, seasonal allergic rhinitis, Crohn's disease, inflammatory bowel disease, reversible airway obstruction, adult respiratory distress syndrome, chronic obstructive pulmonary disease and bronchitis; cerebral apoplexy; craniocerebral trauma; neuropathic pain disorders; gastric ulcers; atherosclerosis and liver cirrhosis.

[0857] Another aspect of the present invention is the use of at least one 4-substituted pyrazoline compound of general formula I given above as suitable active substances, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof, and optionally one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the modulation of cannabinoid-receptors, preferably cannabinoid 1 (CB₁) receptors, for the prophylaxis and/or treatment of disorders of the central nervous system, disorders of the immune system, disorders of the cardiovascular system, disorders of the endocrinous system, disorders of the respiratory system, disorders of the gastrointestinal tract or reproductive disorders.

[0858] Particularly preferred is the use of at least one of the respective 4-substituted pyrazoline compounds, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof, and optionally one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the prophylaxis and/or treatment of psychosis.

[0859] Also particularly preferred is the use of at least one of the respective 4-substituted pyrazoline compounds, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof, and optionally one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the prophylaxis and/or treatment of food intake disorders, preferably bulimia, anorexia, cachexia, obesity and/or type II diabetes mellitus (non-insuline dependent diabetes mellitus), more preferably obesity.

[0860] Also particularly preferred is the use of at least one of the pyrazoline compounds as defined herein and optionally one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the treatment of metabolic syndrome.

[0861] The metabolic syndrome and definitions thereof are described in detail by Eckel et al., *The Lancet*, Vol. 365 (2005), 1415-1428, included herewith by reference. One of the respective definitions was established by the WHO in 1998 (as described in Alberti et al., *Diabet. Med.* 1998, 15, pages 539-53, the respective description thereof is herewith incorporated by reference and forms part of the present disclosure). The other, more widely accepted, definition of the metabolic syndrome was established by the Adult Treatment Panel (ATP III) of the US National Cholesterol Education Program (NCEP) in 2001, as described in *JAMA* 2001; 285; 2486-97, the respective description thereof is herewith incorporated by reference and forms part of the present disclosure.

[0862] The metabolic syndrome is characterized by an interaction of several physiological parameters such as triglycerides, lipids, blood pressure, glucose levels and insuline levels.

[0863] Even though obesity may play a critical role in the development of metabolic syndrome, many of its aspects are weight independent, especially some lipid parameters. Especially the positive influence on the weight independent aspects of the metabolic syndrome (see e.g. Pagotto and Pasquali, *The Lancet*, Vol. 365 (2005), 1363, 1364, included herewith by reference) like some blood parameters, especially lipid parameters is one of the major and surprising advantages of the inventively used substituted pyrazoline compounds.

[0864] Another aspect of the invention is the use of one or more pyrazoline compounds as defined herein for the manufacture of a medicament for improvement of cardiovascular and/or metabolic risk factors, such as one or more of the following factors:

[0865] Elevated triglycerides, whereby elevated levels of triglycerides are preferably understood as being >150 mg/dl,

[0866] Low HDL cholesterol, whereby low levels of HDL cholesterol are preferably understood as being <40 mg/dl in men and <50 mg/dl in women,

[0867] Hypertension, whereby Hypertension is preferably understood as being >130/85 mmHg,

[0868] Impaired fasting glucose, whereby impaired fasting glucose levels are preferably understood as being >110 mg/dl,

[0869] Insulin resistance

[0870] Dyslipidemia.

[0871] Another aspect of the invention is the use of one or more pyrazoline compounds as defined herein for the manufacture of a medicament for the treatment of the weight independent aspects of metabolic syndrome.

[0872] Another aspect of the invention is a method for improving cardiovascular and/or metabolic risk factors, such as one or more of the following factors:

[0873] Elevated triglycerides, whereby elevated levels of triglycerides are preferably understood as being >150 mg/dl,

[0874] Low HDL cholesterol, whereby low levels of HDL cholesterol are preferably understood as being <40 mg/dl in men and <50 mg/dl in women,

[0875] Hypertension, whereby hypertension is preferably understood as being >130/85 mmHg,

[0876] Impaired fasting glucose, whereby impaired fasting glucose levels are preferably understood as being >110 mg/dl,

[0877] Insulin resistance

[0878] Dyslipidemia,

[0879] in a subject, preferably a human.

[0880] Another aspect of the invention is a method for treating of the weight independent aspects of metabolic syndrome.

[0881] Also particularly preferred is the use of at least one of the respective 4-substituted pyrazoline compounds, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof, and optionally one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the prophylaxis and/or treatment of cancer, preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of brain cancer, bone cancer, lip cancer, mouth cancer, esophageal cancer, stomach cancer, liver cancer, bladder cancer, pancreas cancer, ovary cancer, cervical cancer, lung cancer, breast cancer, skin cancer, colon cancer, bowel cancer and prostate cancer, more preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of colon cancer, bowel cancer and prostate cancer.

[0882] Also particularly preferred is the use of at least one of the respective 4-substituted pyrazoline compounds, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof, and optionally

one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the prophylaxis and/or treatment of alcohol abuse and/or alcohol addiction, nicotine abuse and/or nicotine addiction, drug abuse and/or drug addiction and/or medicament abuse and/or medicament addiction, preferably drug abuse and/or drug addiction and/or nicotine abuse and/or nicotine addiction.

[0883] Also particularly preferred is the use of at least one of the of the respective 4-substituted pyrazoline compounds, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding solvate thereof, and optionally one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the prophylaxis and/or treatment of one or more disorders selected from the group consisting of dementia and related disorders, preferably for the prophylaxis and/or treatment of one or more types of dementia selected from the group consisting of memory loss, vascular dementia, mild cognitive impairment, frontotemporal dementia and Pick's disease; binge eating disorders; juvenile obesity; drug induced obesity; atypical depression; behavioural addictions; attention deficit disorders; Tourette's syndrome; suppression of reward-related behaviours; e.g. conditioned place avoidance such as suppression of cocaine- and morphine induced conditioned place preference; impulsivity; sexual dysfunction; preferably for the prophylaxis and/or treatment of one or more types of sexual dysfunction selected from the group consisting of erectile difficulty and female sexual dysfunction; seizure disorders; nausea; emesis; neuroinflammatory disease, preferably for the prophylaxis and/or treatment of one or more types of neuroinflammatory diseases selected from the group consisting of multiple sclerosis, demyelination related disorders, Guillan-Barré syndrome, viral encephalitis and cerebrovascular accidents; neurological disorders; muscle spasticity; traumatic brain injury; spinal cord injury; inflammation and immunomodulatory disorders, preferably for the treatment and/or prophylaxis of one or more types of inflammation and immunomodulatory disorders selected from the group consisting of cutaneous T-cell lymphoma, rheumatoid arthritis, systemic lupus erythematosus, sepsis, sarcoidosis, idiopathic pulmonary fibrosis, bronchopulmonary dysplasia, retinal disease, scleroderma, renal ischemia, myocardial infarction, cerebral ischemia, nephritis, hepatitis, glomerulonephritis, cryptogenic fibrosing aveolitis, psoriasis, transplant rejection, atopic dermatitis, vasculitis, allergy, seasonal allergic rhinitis, Crohn's disease, inflammatory bowel disease, reversible airway obstruction, adult respiratory distress syndrome, chronic obstructive pulmonary disease and bronchitis; cerebral apoplexy; craniocerebral trauma; neuropathic pain disorders; gastric ulcers; atherosclerosis and liver cirrhosis.

[0884] Medicaments/drugs, which are frequently the subject of misuse include opioids, barbiturates, cannabis, cocaine, amphetamines, phencyclidine, hallucinogens and benzodiazepines.

[0885] Also preferred is the use of at least one of the respective 4-substituted pyrazoline compounds, optionally in form of one of the stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of the stereoisomers, preferably enantiomers and/

or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a corresponding salt thereof, or a corresponding solvate thereof, and optionally one or more pharmaceutically acceptable excipients, for the preparation of a medicament for the prophylaxis and/or treatment of one or more disorders selected from the group consisting of bone disorders, preferably osteoporosis (e.g. osteoporosis associated with a genetic predisposition, sex hormone deficiency, or ageing), cancer-associated bone disease or Paget's disease of bone; schizophrenia, anxiety, depression, epilepsy, neurodegenerative disorders, cerebella disorders, spinocerebellar disorders, cognitive disorders, cranial trauma, head trauma, stroke, panic attacks, peripheric neuropathy, inflammation, glaucoma, migraine, Morbus Parkinson, Morbus Huntington, Morbus Alzheimer, Raynaud's disease, tremblement disorders, compulsive disorders, senile dementia, thymic disorders, tardive dyskinesia, bipolar disorders, medicament-induced movement disorders, dystonia, endotoxemic shock, hemorrhagic shock, hypotension, insomnia, immunologic disorders, sclerotic plaques, vomiting, diarrhea, asthma, memory disorders, pruritus, pain, or for potentiation of the analgesic effect of narcotic and non-narcotic analgesics, or for influencing intestinal transit.

[0886] Dementia is a disease characterized by the progressive deterioration in cognitive and social adaptive functions that can eventually interfere with the patient's ability to live independently. Dementia also constitutes of impairment in short- and long-term memory plus additional symptoms, such as problems with abstract thinking, judgment, or personality. An estimated 18 million patients suffer from dementia worldwide. The most common forms of dementia include Alzheimer's disease and vascular dementia. Other forms are frontotemporal dementia and Pick's disease.

[0887] Dementia can also be of vascular origin. Vascular dementia (atherosclerotic cerebrovascular disease) is considered to be the second most common dementia of late life, affecting approximately 10-15% of all cases. AD and vascular dementia can exist in isolation or together (mixed dementia). In vascular dementia, atherosclerotic changes in cerebral vessels can lead to reduced local blood flow that results in multiple small strokes (multi-infarct dementia). Vascular dementia is pharmacologically treated by stroke prophylaxis, and by treatment of the cognitive deficit.

[0888] Alzheimer's disease (AD), the most common and important form of dementia, is a neurodegenerative disorder that is characterized by progressive impairment of cognitive functions, such as abstract reasoning and memory. Currently, an estimated 2 million people in the United States and 12 million worldwide are afflicted by this disease. Due to increasing life expectancy, it is predicted that there will be over 100 million AD patients worldwide by the year 2050. AD is one of the most prevalent illnesses in the elderly. The majority of AD patients are in their sixties or older. More than 5% of all persons over the age of 70 have significant memory loss due to AD.

[0889] AD is mainly characterized through a gradual development of forgetfulness. In further advanced disease stages, other failures in cerebral function become increasingly apparent. This includes impairment of speech, writing, and arithmetic skills. Visiospatial orientation, such as parking the car, dressing properly, and giving and understanding directions to a location, can become defective or impaired.

In late stage disease, patients forget how to use common objects and tools while retaining necessary motor power and co-ordination for these activities.

[0890] Schizophrenia is characterized by profound disruption in cognition and emotion, affecting the most fundamental human attributes: language, thought, perception, affect, and sense of self. Positive symptoms include psychotic manifestations, such as hearing internal voices or experiencing other sensations not connected to an obvious source (hallucinations) and assigning unusual significance or meaning to normal events or holding fixed false personal beliefs (delusions). Negative symptoms are characterized by affective flattening and lack of initiative or goals (avolition), loss of usual interests or pleasures (anhedonia), disturbances of sleep and eating, dysphoric mood (depressed, anxious, irritable, or angry mood) and difficulty concentrating or focusing attention.

[0891] Major depression is a multifaceted disorder characterized by primarily by dysphoric mood and loss of interest or pleasure in activities that were once enjoyable. Other physical and psychological symptoms include inability to concentrate, motor disturbances (psychomotor retardation or agitation), feelings of worthlessness, inappropriate guilt, thoughts of suicide, and disturbances in appetite and sleep.

[0892] Anxiety disorders are a group of syndromes that include generalized anxiety disorder, panic disorder, phobias, obsessive-compulsive disorder, and post traumatic stress disorder. Although each disorder has its own distinct features, all share common symptoms of excessive worrying, intense fears and dread, hypervigilance and/or somatic symptoms, in the absence of a dangerous situation.

[0893] Normal sexual function requires, among others, the ability to achieve and maintain penile erection. Major anatomic structures of the penis that are involved in erectile function include the corpus cavernosum, corpus spinosum, and the tunica albuginea (a collagenous sheath that surrounds each corpus). The corpora are composed of a mass of smooth muscle (trabecula) which contains a network of endothelial-lined vessels (lacunar spaces). Penile tumescence and erection is caused by relaxation of the arteries and corporal smooth muscles, while closing emissary veins, leading to increased blood flow into the lacunar network. Central and peripheral innervation contributes to regulation of the erectile response.

[0894] Erectile dysfunction (ED) may result from failure to initiate, fill, or store adequate blood volume within the lacunar network of the penis. Depending on the underlying dysfunction, ED may be vasculogenic, neurogenic, endocrinologic, diabetic, psychogenic, or medication-related.

[0895] ED affects 10-25% of middle-aged and elderly men, and has a profound impact on the well-being of affected men. It is currently treated using PDE5 inhibitors such as vardenafil, tadalafil, and sildenafil. Intraurethral alprostadil (prostaglandin E1) may be used in patients that fail on oral agents. In addition, vacuum constriction devices (VCD) are a well-established, noninvasive therapy.

[0896] Female sexual dysfunction (FSD) is highly prevalent, age-related, and progressive. It affects 30 to 50% of women. FSD denotes a range of medical problems and is categorized according to disorders of (1) desire, (2) arousal,

(3) orgasm and (4) sexual pain, and symptoms include diminished vaginal lubrication, pain and discomfort with intercourse, decreased arousal, and difficulty achieving orgasm. On a molecular level, vasoactive intestinal peptide (VIP), nitric oxide (NO), and sex hormones such as estrogens and androgens have been suggested to be important in female sexual function. Current treatment approaches include estrogen replacement therapy, methyl testosterone, PDE5 inhibitors such as sildenafil, the NO-donor L-arginine, prostaglandin E1, phentolamine, and the dopamine agonists apomorphine.

[0897] The medicament according to the present invention may be in any form suitable for the application to humans and/or animals, preferably humans including infants, children and adults and can be produced by standard procedures known to those skilled in the art. The medicament can be produced by standard procedures known to those skilled in the art, e.g. from the table of contents of "Pharmaceutics: The Science of Dosage Forms", Second Edition, Aulton, M. E. (Ed. Churchill Livingstone, Edinburgh (2002); "Encyclopedia of Pharmaceutical Technology", Second Edition, Swarbrick, J. and Boylan J. C. (Eds.), Marcel Dekker, Inc. New York (2002); "Modern Pharmaceutics", Fourth Edition, Banker G. S. and Rhodes C. T. (Eds.) Marcel Dekker, Inc. New York 2002 y "The Theory and Practice of Industrial Pharmacy", Lachman L., Lieberman H. And Kanig J. (Eds.), Lea & Febiger, Philadelphia (1986). The respective descriptions are hereby incorporated by reference and form part of the disclosure. The composition of the medicament may vary depending on the route of administration.

[0898] The medicament of the present invention may for example be administered parentally in combination with conventional injectable liquid carriers, such as water or suitable alcohols. Conventional pharmaceutical excipients for injection, such as stabilising agents, solubilizing agents, and buffers, may be included in such injectable compositions. These medicaments may for example be injected intramuscularly, intraperitoneally, or intravenously.

[0899] Medicaments according to the present invention may also be formulated into orally administrable compositions containing one or more physiologically compatible carriers or excipients, in solid or liquid form. These compositions may contain conventional ingredients such as binding agents, fillers, lubricants, and acceptable wetting agents. The compositions may take any convenient form, such as tablets, pellets, granules, capsules, lozenges, aqueous or oily solutions, suspensions, emulsions, or dry powdered forms suitable for reconstitution with water or other suitable liquid medium before use, for immediate or retarded release. The multiparticulate forms, such as pellets or granules, may e.g. be filled into a capsule, compressed into tablets or suspended in a suitable liquid.

[0900] Suitable controlled release formulations, materials and methods for their preparation are known from the prior art, e.g. from the table of contents of "Modified-Release Drug Delivery Technology", Rathbone, M. J. Hadgraft, J. and Roberts, M. S. (Eds.), Marcel Dekker, Inc., New York (2002); "Handbook of Pharmaceutical Controlled Release Technology", Wise, D. L. (Ed.), Marcel Dekker, Inc. New York, (2000); "Controlled Drug Delivery", Vol, I, Basic Concepts, Bruck, S. D. (Ed.), CRD Press Inc., Boca Raton (1983) y de Takada, K. and Yoshikawa, H., "Oral Drug

Delivery”, Encyclopedia of Controlled Drug Delivery, Mathiowitz, E. (Ed.), John Wiley & Sons, Inc., New York (1999), Vol. 2, 728-742; Fix, J., “Oral drug delivery, small intestine and colon”, Encyclopedia of Controlled Drug Delivery, Mathiowitz, E. (Ed.), John Wiley & Sons, Inc., New York (1999), Vol. 2, 698-728. The respective descriptions are hereby incorporated by reference and form part of the disclosure.

[0901] Medicaments according to the present invention may also comprise an enteric coating, so that their dissolution is dependent on pH-value. Due to said coating the medicament can pass the stomach undissolved and the respective 4-substituted pyrazoline compound of general formula I is liberated in the intestinal tract. Preferably the enteric coating is soluble at a pH value of 5 to 7.5. Suitable materials and methods for the preparation are known from the prior art.

[0902] Typically, the medicaments according to the present invention may contain 1-60% by weight of one or more 4-substituted pyrazoline compounds as defined herein and 40-99 % by weight of one or more auxiliary substances (additives).

[0903] The liquid oral forms for administration may also contain certain additives such as sweeteners, flavoring, preservatives, and emulsifying agents. Non-aqueous liquid compositions for oral administration may also be formulated, containing edible oils. Such liquid compositions may be conveniently encapsulated in e.g., gelatin capsules in a unit dosage amount.

[0904] The compositions of the present invention may also be administered topically or via a suppository.

[0905] The daily dosage for humans and animals may vary depending on factors that have their basis in the respective species or other factors, such as age, sex, weight or degree of illness and so forth. The daily dosage for humans may preferably be in the range from 1 to 2000, preferably 1 to 1500, more preferably 1 to 1000, even more preferably 1 to 150 milligrams of active substance to be administered during one or several intakes per day.

Pharmacological Methods

I. In-vitro Determination of Affinity to CB₁/CB₂-Receptors a)

[0906] The in-vitro determination of the affinity of the inventive 4-substituted pyrazoline compounds to CB₁/CB₂-Receptors is carried out as described in the publication of Ruth A. Ross, Heather C. Brockie et al., “Agonist-inverse agonist characterisation at CB₁ and CB₂ cannabinoid receptors of L-759633, L759656 and AM630”, British Journal of Pharmacology, 126, 665-672, (1999), whereby the transfected human CB₁ and CB₂ receptors of Receptor Biology, Inc. are used. The radioligand used for both receptors is [³H]-CP55940. The respective parts of the description is hereby incorporated by reference and forms part of the present disclosure.

b)

Rat Cerebellum CB₁ Binding

[0907] Binding affinity to CB₁ receptor was evaluated according to a modification of the method described by

Govaerts et al., Eur J Pharmac Sci 23, 233-243 (2004). The respective parts of the description is hereby incorporated by reference and forms part of the present disclosure.

[0908] Briefly, cerebellum from male wistar rats (250-300 g) were carefully dissected on ice and homogenates were prepared with Potter-Helvehem in a cold 50 mM Tris-HCl solution containing 5 mM MgCl₂, 1 mM EDTA and 0.25 M sucrose, pH 7.4. The suspension was centrifuged at 1,00×g for 5 minutes. The supernatants were collected and centrifuged 50,000×g for 15 minutes. The resulting pellets were then resuspended in Tris-HCl buffer without sucrose, homogenized and incubated for 15 min at 37° C. in an orbital shaker bath and centrifuged again at 50,000×g for 15 min. Pellets were weighted, resuspended in Tris-HCl buffer without sucrose, homogenized with Ultraturrax at 13,500 rpm for 3×5 seconds and alicuoted in 0.9 ml volumes in Eppendorf tubes. Alicuotes were centrifuged at 20,800×g for 5 minutes, supernatants discarded and pellets were frozen at -80° C. until use. Total protein concentration was determined using the Bio-Rad Lowry method based kit. Competitive binding experiments were performed in presence of 1 nM [³H]-CP 55,940 in siliconized glass tubes containing 100 µg protein/tube resuspended in 1 ml final volume of 50 mM Tris-HCl, 5 mM MgCl₂, 1 mM EDTA, 0.5% (w/v) bovine serum albumin, pH 7.4. Compounds were present at various concentrations and the non specific binding was determined in the presence of 10 µM HU-210. After 1 hour incubation at 30° C., the suspension was rapidly filtered through 0.5% PEI pre-treated GF/B fiber filters on a 96-well harvester and washed 3 times with 3 ml ice-cold binding buffer without bovine serum albumin. Radioactivity on filters was measured with Wallac Winspectral 1414 counter by liquid scintillation in 6 ml Ecoscint H (National Diagnostics, U.K.). Assays were made in triplicates.

[0909] Binding data were analyzed by non-linear regression with the software GraphPad Prism Version 3.03.

II. In-vivo Bioassay System for Determination of Cannabinoid Activity

Mouse Tetrad Model

[0910] Substances with affinity for cannabinoid receptors are known to produce a wide range of pharmacological effects. It is also known that intravenous administration of a substance with affinity for cannabinoid receptors in mice produces analgesia, hypothermia, sedation and catalepsy. Individually, none of these effects can be considered as proof that a tested substance has affinity for cannabinoid-receptors, since all of these effects are common for various classes of centrally active agents. However, substances, which show all of these effects, i.e. substances that are active in this so-called tetrad model are considered to have affinity for the cannabinoid receptors. It has further been shown that cannabinoid receptor antagonists are highly effective in blocking the effects of a cannabinoid agonist in the mouse tetrad model.

[0911] The tetrad model is described, for example, in the publication of A. C. Howlett et al, International Union of Pharmacology XXVII. Classification of Cannabinoid Receptors, Pharmacol Rev 54, 161-202, 2002 and David R. Compton et al., “In-vivo Characterization of a Specific Cannabinoid Receptor Antagonist (SR141716A): Inhibition of Tetrahydrocannabinol-induced Responses and Apparent

Agonist Activity”, J. Pharmacol. Exp. Ther. 277, 2, 586-594, 1996. The corresponding parts of the descriptions are hereby incorporated by reference.

Material and Methods

[0912] Male NMRI mice with a weight of 20-30 g (Harlan, Barcelona, Spain) are used in all of the following experiments.

[0913] Before testing in the behavioural procedures given below, mice are acclimatised to the experimental setting. Pre-treatment control values are determined for analgesia hot plate latency (in seconds), rectal temperature, sedation and catalepsy.

[0914] In order to determine the agonistic activity of the substance to be tested, the mice are injected intravenously with the substance to be tested or the vehicle alone. 15 minutes after injection, latency-in hot plate analgesia is measured. Rectal temperature, sedation and catalepsy are measured 20 minutes after injection.

[0915] In order to determine the antagonistic activity the identical procedure is used as for the determination of the agonistic effects, but with the difference that the substance to be evaluated for its antagonistic activity is injected 5 minutes before the intravenous injection of 1.25 mg/kg Win-55, 212 a known cannabinoid-receptor agonist.

Hot Plate Analgesia

[0916] The hot plate analgesia is determined according to the method described in Woolfe D. et al. “The evaluation of analgesic action of pethidine hydrochloride (Demerol)”, J. Pharmacol. Exp. Ther. 80, 300-307, 1944. The respective description is hereby incorporated by reference and forms part of the present disclosure.

[0917] The mice are placed on a hot plate (Harvard Analgesimeter) at $55 \pm 0.5^\circ \text{C}$. until they show a painful sensation by licking their paws or jumping and the time for these sensations to occur is recorded. This reading is considered the basal value (B). The maximum time limit the mice are allowed to remain on the hot plate in absence of any painful response is 40 seconds in order to prevent skin damage. This period is called the cut-off time (PC).

[0918] Fifteen minutes after the administration of the substance to be tested, the mice are again placed on the hot plate and the afore described procedure is repeated. This period is called the post-treatment reading (PT).

[0919] The degree of analgesia is calculated from the formula:

$$\% \text{ MPE of Analgesia} = (PT - B) / (PC - B) \times 100$$

MPE=Maximum possible effect.

Determination of Sedation and Ataxia

[0920] Sedation and ataxia is determined according to the method described in Desmet L. K. C. et al. “Anticonvulsive properties of Cinarizine and Flunarizine in Rats and Mice”, *Arzneim.-Forsch. (Frug Res)* 25, 9, 1975. The respective description is hereby incorporated by reference and forms part of the present disclosure.

[0921] The chosen scoring system is

[0922] 0: no ataxia;

[0923] 1: doubtful;

[0924] 2: obvious calmness and quiet;

[0925] 3 pronounced ataxia;

prior to as well as after treatment.

[0926] The percentage of sedation is determined according to the formula:

$$\% \text{ of sedation} = \text{arithmetic mean} / 3 \times 100$$

Hypothermia:

[0927] Hypothermia is determined according to the method described in David R. Compton et al. “In-vivo Characterization of a Specific Cannabinoid Receptor Antagonist (SR141716A) Inhibition of Tetrahydrocannabinol-induced Responses and Apparent Agonist Activity”, J. Pharmacol Exp Ther. 277, 2, 586-594, 1996. The respective description is hereby incorporated by reference and forms part of the present disclosure.

[0928] The base-line rectal temperatures are determined with a thermometer (Yello Springs Instruments Co., Pan-labs) and a thermistor probe inserted to 25 mm before the administration of the substance to be tested. Rectal temperature is again measured 20 minutes after the administration of the substances to be tested. The temperature difference is calculated for each animal, whereby differences of $\geq -2^\circ \text{C}$. are considered to represent activity.

Catalepsy:

[0929] Catalepsy is determined according to the method described in Alpermann H. G. et al. “Pharmacological effects of Hoe 249: A new potential antidepressant” *Drugs Dev. Res.* 25, 267-282, 1992. The respective description is hereby incorporated by reference and forms part of the present disclosure.

[0930] The cataleptic effect of the substance to be tested is evaluated according to the duration of catalepsy, whereby the animals are placed head downwards with their kinlegs upon the top of the wooden block.

[0931] The chosen scoring system is:

[0932] Catalepsy for:

[0933] more than 60 seconds=6; 50-60 seconds=5, 40-50 seconds=4, 30-40 seconds=3, 20-30 seconds=2, 5-10 seconds=1, and less than 5 seconds=0.

[0934] The percentage of catalepsy is determined according to the following formula:

$$\% \text{ Catalepsy} = \text{arithmetic mean} / 6 \times 100$$

III. In vivo Testing for Antiobesic Activity

a) Acute Treatment

[0935] Normally handled rats were habituated to a reversed cycle 12/12 h, and the tested compound as well as saline was acutely orally administered. After administration the cumulated food intake (g) was measured at 6 h and 24 h. Following that the difference in body weight between

control and compound treated animals was measured. This is a variation of the test according to Colombo et al. as described below.

b) Long-Term Treatment

[0936] The in-vivo testing for antiobesic activity of the inventive pyrazoline compounds is carried out as described in the publication of G. Colombo et al., "Appetite Suppression and Weight Loss after the Cannabinoid Antagonist SR 141716"; *Life Sciences*, 63 (8), 113-117, (1998). The respective part of the description is hereby incorporated by reference and forms part of the present disclosure.

IV. In vivo Testing for Antidepressant Activity

[0937] The in-vivo testing for antidepressant activity of the inventive pyrazoline compounds in the water despair test is carried out as described in the publication of E. T. Tzavara et al., "The CB1 receptor antagonist SR141716A selectively increases monoaminergic neurotransmission in the medial prefrontal cortex: implications for therapeutic actions"; *Br. J. Pharmacol.* 2003, 138(4):544:53. The respective part of the description is hereby incorporated by reference and forms part of the present disclosure.

[0938] The present invention is illustrated below with the aid of examples. These illustrations are given solely by way of example and do not limit the general spirit of the present invention.

V. In vitro Determination of Antagonism to CB1-Receptor

Membrane Preparation:

[0939] Chinese hamster ovary (CHO) cells stably expressing recombinant human cannabinoid 1 receptor (CB1) were cultured in nutrient mixture Ham's F 12 supplemented with 10% heat-inactivated fetal bovine serum, 2 mM L-glutamine, 50 U/ml penicillin, 50 U/ml streptomycin and 0.5 mg/ml geneticin. In order to obtain cells, culture flasks were washed twice with phosphate buffered saline and scraped. Then, cells were collected by centrifugation (200×g, 10 min) and stored dry at -80° C. Cells were homogenized in ice-cold 20 mM HE PES, 10 mM EDTA (pH 7.5) and centrifuged at 40,000×g for 15 min at 4° C. The pellet was resuspended in 20 mM HEPES, 0.1 mM EDTA (pH 7.5) and centrifuged for 15 min at 4° C. The final pellet was resuspended in 20 mM HEPES, 0.1 mM EDTA (pH 7.5), and divided in aliquots and stored at -80° C. until use.

[³⁵S]GTPγS Binding Assay:

[0940] The reaction was performed in 96-well plates. Membranes (15 μg protein/well) were incubated for 60 min at 30° C. in buffer (50 mM HE PES, 100 mM KCl, 5 mM MgCl₂, 1 mM EDTA, 0.1% wt/vol bovine serum albumin, 5 μM GDP, saponin (10 μg/ml), 0.5 nM [³⁵S]GTPγS, pH 7.4) with compound at 1 μM final concentration in either the absence or presence of dose response curve of agonist WIN 55,212-2 between 3 nM and 3 μM. The incubation was terminated by rapid filtration through Millipore Multiscreen glass fiber FB, and rinsed two-times with ice-cold assay buffer. Filter plates were dried and 30 μl of scintillation liquid was added. Radioactivity was determined using Wallac Microbeta Trilux. Each experiment was performed at least in duplicate. A WIN 55,212-2 dose-response either alone or in the presence of Rimonabant (1 μM) was systematically performed.

Calculations:

[0941] The average of basal [³⁵S]GTPγS binding was subtracted from all binding data. In order to compare the antagonism results from one screening campaign to another one, the difference between the maximal agonist effect of WIN 55,212-2 alone, and the maximal antagonism effect due to WIN 55,212-2 plus Rimonabant (1 μM) was defined as 100%.

Further Methods:

Alcohol Intake

[0942] The following protocol may be used to evaluate the effects of alcohol intake in alcohol preferring (P) female rats (e.g. bred at Indiana University) with an extensive drinking history. The following reference provides detailed a description of P rats: Lumeng, L, et al., "Different sensitivities to ethanol in alcohol-preferring and nonpreferring rats," *Pharmacol, Biochem Behav.*, 16, 125-130 (1982).

[0943] Female rats are given 2 hours of access to alcohol (10% v/v and water, 2-bottle choice) daily at the onset of the dark cycle. The rats are maintained on a reverse cycle to facilitate experimenter interactions. The animals are initially assigned to four groups equated for alcohol intakes: Group 1-vehicle; Group 2-positive control (e. g. 5.6 mg/kg AM251; Group 3-low dose test compound; and Group 4-high dose of test compound. Test compounds are generally mixed into a vehicle of 30% (w/v)-cyclodextrin in distilled water at a volume of 1-2 ml/kg. Vehicle injections are given to all groups for the first two days of the experiment. This is followed by 2 days of drug injections (to the appropriate groups) and a final day of vehicle injections. On the drug injection days, drugs are given sc 30 minutes prior to a 2-hour alcohol access period. Alcohol intake for all animals is measured during the test period and a comparison is made between drug and vehicle-treated animals to determine effects of the compounds on alcohol drinking behavior.

[0944] Additional drinking studies can be done utilizing female C57BI/6 mice (Charles River). Several studies have shown that this strain of mice will readily consume alcohol with little to no manipulation required (Middaugh et al., "Ethanol Consumption by C57BU6 Mice: Influence of Gender and Procedural Variables" *Alcohol*, 17 (3), 175-183, 1999; Le et al., "Alcohol Consumption by C57BI/6, BALA/c, and DBA/2 Mice in a Limited Access Paradigm" *Pharmacology Biochemistry and Behavior*, 47, 375-378, 1994).

[0945] For example, upon arrival mice are individually housed and given unlimited access to powdered rat chow, water and a 10% (w/v) alcohol solution. After 2-3 weeks of unlimited access, water is restricted for 20 hours and alcohol is restricted to only 2 hours access daily. This is done in a manner that the access period was the last 2 hours of the dark part of the light cycle.

[0946] Once drinking behavior is stabilized, testing can commence. Mice are considered stable when the average alcohol consumption for 3 days is 20% of the average for all 3 days. Day 1 of test consists of all mice receiving vehicle injection (sc or ip). Thirty to 120 minutes post injection access is given to alcohol and water. Alcohol consumption for that day is calculated (g/kg) and groups are assigned so that all groups have equivocal alcohol intake. On day 2 and 3, mice are injected with vehicle or drug and the same

protocol as the previous day is followed. Day 4 is wash out and no injections are given. Data is analyzed using repeated measures ANOVA. Change in water or alcohol consumption is compared back to vehicle for each day of the test. Positive results would be interpreted as a compound that was able to significantly reduce alcohol consumption while having no effect on water

Oxygen Consumption Methods:

[0947] Whole body oxygen consumption is measured using an indirect calorimeter (Oxymax from Columbus Instruments, Columbus, Ohio) in male Sprague Dawley rats (if another rat strain or female rats are used, it will be specified). Rats (e.g. 300-380 g body weight) are placed in the calorimeter chambers and the chambers are placed in activity monitors. These studies are done during the light cycle. Prior to the measurement of oxygen consumption, the rats are fed standard chow ad libitum. During the measurement of oxygen consumption, food is not available. Basal pre-dose oxygen consumption and ambulatory activity are measured every 10 minutes for 2.5 to 3 hours. At the end of the basal pre-dosing period, the chambers are opened and the animals are administered a single dose of compound (the usual dose range is 0.001 to 10 mg/kg) by oral gavage (or other route of administration as specified, i. e., sc, ip, iv). Drugs are prepared in methylcellulose, water or other specified vehicle (examples include PEG400, 30% beta-cyclo dextran and propylene glycol). Oxygen consumption and ambulatory activity are measured every 10 minutes for an additional 1-6 hours post-dosing.

[0948] The Oxymax calorimeter software calculates the oxygen consumption (ml/kg/h) based on the flow rate of air through the chambers and difference in oxygen content at inlet and output ports. The activity monitors have 15 infrared light beams spaced one inch apart on each axis, ambulatory activity is recorded when two consecutive beams are broken and the results are recorded as counts.

[0949] Resting oxygen consumption, during pre-and post-dosing, is calculated by averaging the 10-min⁰² consumption values, excluding periods of high ambulatory activity (ambulatory activity count>100) and excluding the first 5 values of the pre-dose period and the first value from the post-dose period. Change in oxygen consumption is reported as percent and is calculated by dividing the post-dosing resting oxygen consumption by the pre-dose oxygen consumption *100. Experiments will typically be done with n=4-6 rats and results reported are mean +/-SEM.

Interpretation:

[0950] An increase in oxygen consumption of >10% is considered a positive result. Historically, vehicle-treated rats have no change in oxygen consumption from pre-dose basal.

Nicotine Dependence

[0951] An intravenous nicotine self-administration model or place preference model may be used to assess the effects of a test compound on nicotine dependence (see, e.g., Vastola, et al. *Physiol. Behav.* 77:107-114, 2002; Brower, et al., *Brain Res.* 930:12-20, 2002).

Place Preference

[0952] Sprague-Dawley rats are used in this study (Vastola, et al., 2002). Animals are housed in a temperature-controlled, 12 h/12 h illumination cycle with ad libitum access to food and water. Conditioning and testing are conducted in a chamber divided into two compartments with

a door separating the two compartments. Behavior of the animals is recorded by video camera.

[0953] Animals are habituated to the injection procedure for several days. The animals are then placed into the test chamber and given free access to both compartments. The initial preference for a particular compartment is determined. For the conditioning trials, animals are injected with nicotine and restricted to the nonpreferred compartment, or the animals are injected with saline and restricted to the preferred compartment. On test day, the door separating the compartments is removed, the animal is placed in the center of the chamber and allowed to move freely between compartments. Time spent in each compartment is scored. Preferential occupancy of the nicotine compartment follows from the conditioned reinforcing effects of nicotine.

Self-Administration

[0954] Self-administration in animals is a predictor of a compound's abuse potential in humans. Modifications to this procedure may also be used to identify compounds that prevent or block the reinforcing properties of drugs that have abuse potential. A compound that extinguishes the self-administration of a drug may prevent that drug's abuse or its dependence.

[0955] Sprague-Dawley rats are used in this study. Initially, animals are housed in a temperature-controlled, 12 h/12 h illumination cycle with ad libitum access to food and water. The animals are then implanted with jugular catheters which exit through the animal's back, and each animal is placed in an individual operant chamber (Brower, et al., 2002). The catheters are connected to a computer-driven syringe pump which is located outside of the chamber. The chamber contains two levers with a green light located above each lever. The light is illuminated when nicotine is available.

[0956] In a self-administration test, animals are placed in the operant chambers and the levers are randomly designated as an active and inactive lever. Each response on the active lever produces an infusion of nicotine. Presses on the inactive lever have no effect, but are also recorded. Animals are then trained to self-administer nicotine over a set period of time by having drug access during each daily session. Illumination of the chamber house light signals the beginning of the session and the availability of nicotine. When the session ends, the house light is turned off. Initially, a nicotine infusion occurs with every press of the active lever. Once lever-pressing behavior has been established, the number of presses to produce a nicotine infusion is increased. After stable nicotine self-administration is obtained, the effect of a test compound on the nicotine-reinforced behavior may be evaluated. Administration of this test compound prior to the session can either potentiate, extinguish, or produce no change to the self-administering behavior. Tests are conducted every two days, and the order of the administration of the test compound doses is controlled.

Alzheimer/Dementia Experiments

Morris Water Maze Task

[0957] The Morris water maze is a behavioral in vivo test to measure spatial orientation learning and memory through a complex learning task. It is highly suitable for testing compounds that enhance learning and memory. A circular water tank or pool (diameter 2 m, height 0.7 m) is filled with water, and a 10 cm² platform is placed 1-1.5 cm below the water surface at a defined location within the pool. The-

escape. platform is not visible for an animal swimming in the water tank. For the experiment, a rat or mouse is placed into the pool to swim freely.

[0958] The animals have the task to localize the submerged platform, and the time and distance required for successful retrieval is measured. Multiple extra-maze cues are provided by the furniture in the room, including desks, computer equipment, a second water tank, the presence of the experimenter, and by a radio on a shelf that is playing softly.

[0959] Before administration of the test compound, animals are usually trained in the task 4 times a day for 5 days. Test compounds are administered orally or intraperitoneally on the day of the experiment at a defined time (e.g., 30 minutes before the first swim test). Control animals are dosed with the corresponding vehicle not containing test compound. Active compounds yield shorter times and distances to localize the platform (i.e., the better the animal remembers the location of the platform, the shorter the distance covered and the faster the platform is reached).

[0960] The test can also be carried out using transgenic or cognitively impaired animals. Cognitive impairment is induced either by old age or experimentally through brain lesions, such as bilateral lesions of the, entorhinal cortex in rats. Such lesions can be induced by intracerebral injections of the excitotoxin ibotenic acid.

Object Recognition Task

[0961] The object recognition task is used to assess the effects of compounds on the cognitive performance of rodents. A rat is placed in an open field, in which two identical objects are located. The rat inspects both objects during the initial trial of the test. After a certain retention interval (e.g., 24 hours), a second trial is carried out. Here, one of the two objects used in the first trial (the 'familiar' object) and a novel object are placed in the open field, and the inspection time at each of the objects is measured. Good retention is reflected by higher exploration times towards the novel compared with the 'familiar' object.

[0962] Administration of the putative cognition enhancer prior to the first trial predominantly allows assessment of the effects on acquisition, and on the consolidation processes. Administration of the test compound after the first trial allows to assess the effects on consolidation processes, whereas administration before the second trial allows to measure effects on retrieval processes.

Passive Avoidance Task

[0963] The passive avoidance task assesses memory performance in rats and mice. The inhibitory avoidance uses an apparatus consisting of a box with two compartments separated by a guillotine door that can be operated by the experimenter. One compartment is illuminated with bright light, and the other compartment is dark. A threshold of 2 cm separates the two compartments when the guillotine door is 15 raised. When the door is open, the illumination in the dark compartment is about 2 lux. The light intensity is about 500 lux at the center of the floor of the light compartment.

[0964] Two habituation sessions, one shock session, and a retention session are given, separated by inter-session intervals of 24 hours. During the habituation sessions and the retention session, the rat is allowed to explore the apparatus for 300 seconds. The rat is placed in the light compartment, facing the wall opposite to the guillotine door. After an accommodation period of 15 seconds, the guillotine door is

opened so that all parts of the apparatus can be visited freely. Rats normally avoid brightly lit areas and will enter the dark compartment within a few seconds.

[0965] In the shock session, the guillotine door between the compartments is lowered as soon as the rat has entered the dark compartment with all paws, and a scrambled 1 mA footshock is administered for 2 seconds. Then the rat is removed from the apparatus and returned into its home cage. The procedure during the retention session is identical to that of the habituation sessions.

[0966] The step-through latency, that is, the first latency of entering the dark compartment (in seconds) during the retention session is an index of the memory performance of the animal: a better retention is assumed if the latency to enter the dark compartment is longer. A test compound is given 30 minutes before the shock session, together with 1 mg/kg scopolamine. Scopolamine impairs the memory performance during the retention session 24 hours later. If the test compound increases the enter latency compared with the scopolamine-treated controls, it is considered to possess cognition enhancing activity. T-maze Spontaneous Alternation Task

[0967] The T-maze spontaneous alternation task (TeM-CAT) assesses the spatial memory performance in mice. The start arm and the two goal arms of the T-maze are provided with guillotine doors that can be operated manually by the experimenter. A mouse is put into the start arm at the beginning of training. In the first trial, either the left or right goal arm is blocked by lowering the respective guillotine door (forced trial).

[0968] After the mouse has been released from the start arm, it will explore the maze, eventually entering the open goal arm, and return to the start position, where it will be confined for 5 seconds, by lowering the guillotine door. Then, the animal can choose freely between the left and right goal arm (all guillotine-doors opened) during 14 additional trials (free choice trials). As soon as a mouse has entered one goal arm, the other arm is closed. The mouse eventually returns to the start arm and is free to visit whichever arm it wants after having been confined to the start arm for 5 seconds. After completion of 14 free choice trials in one session, the animal is removed from the maze.

[0969] Out of the 14 trials the alternations in percent are calculated. This percentage and the total time needed to complete the first forced trial and the subsequent 14 free choice trials (in seconds) is analyzed. In addition, cognitive deficits can be induced by injection of scopolamine 30 minutes before the start of the training session. A cognition enhancer, administered before the training session, will at least partially, antagonize the scopolamine-induced reduction in the spontaneous alternation rate.

Depression Model

[0970] A forced swim or tail suspension model may be used to assess the efficacy of antidepressant compounds (see, e.g., Porsolt, et al., *Nature* 266:730-732, 1977; Stem, et al., *Psychopharmacology* 85:367-370, 1985).

Forced Swim Test

[0971] Rats or mice are placed in a cylinder filled with water 23-25° C. from which no escape is possible. Initially, animals struggle and try to escape, but eventually adopt a characteristic immobile posture and make no further attempts to escape except for small movements needed their head above water. Animals are dosed with a compound and

the activity (swimming or climbing) or immobility is measured by an observer. The immobility is considered by some to reflect a 'behavioral despair' in which animals cease to struggle to escape the aversive situation. A wide variety of clinically used antidepressants (TCAs, MAOs, SSRIs, atypicals) decrease immobility in this test and has a good predictive validity in that it detects antidepressants with different mechanisms of action but its construct validity is weak. At least two distinct active behavioral patterns are produced by pharmacologically selective antidepressant drugs. Serotonin-selective reuptake inhibitors increase swimming behavior, whereas drugs acting primarily to increase extracellular levels of norepinephrine or dopamine increase climbing behavior. There are false positives (psychostimulants) but relatively few false negatives ([beta]-adrenergic agonists). The test is sensitive to muscle-relaxant (benzodiazepines) and sedative (neuroleptics) effects, leading to enhanced immobility. False positives and false negatives can often be screened by measuring if the compound produces locomotor stimulation or sedation.

Tail Suspension Test

[0972] When suspended by the tail, mice will initially struggle and try to escape and then alternate between active escape attempts and immobility. In this test, animals are dosed with a compound and the immobility is measured by an observer for 6 min.

[0973] Porsolt describes the immobile behavior as 'behavioral despair' which animals cease to struggle to escape the aversive situation. A large variety of clinically antidepressants (tricyclics, MAOIs, SSRIs, and atypicals) reduce immobility in this model. The test has a good predictive validity for antidepressant activity and works for most antidepressant classes including but has some false positives (psychostimulants). The test is sensitive to muscle-relaxant (benzodiazepines) and sedative (neuroleptics) effects, which lead to enhanced immobility. False positives and false negatives can often be screened by measuring if the compound produces locomotor stimulation or sedation. Strain differences in the tail suspension test have been found in mice. The tail suspension test has some face validity but its construct validity is rather weak.

Schizophrenia Model

[0974] A prepulse inhibition model may be used to assess the efficacy of antipsychotic compounds (see Swerdlow and Geyer, *Schizophrenia Bulletin* 24: 285-301, 1998).

Prepulse Inhibition

[0975] Prepulse inhibition is the process whereby a relatively mild stimulus, the prepulse, suppresses the response to a strong, startle-eliciting stimulus when the prepulse precedes the startle stimulus by a brief duration (about 10 to 500 milliseconds). Prepulse inhibition is a cross-species phenomenon (ie, it is present in mammals ranging from mice to humans), yet it is relatively absent among schizophrenic patients. The deficit in PPI in schizophrenic patients is thought to reflect the loss of sensorimotor gating that may lead to sensory flooding and cognitive fragmentation. In this test, mice or rats are administered compounds and individually placed into a holder on a transducer platform to measure whole body startle. The holder is housed in a startle chamber with background white noise. Following a brief habituation period, animals are given multiple trials of a weak auditory prepulse stimulus, followed by a strong auditory startle stimulus. Four types of trials are given: prepulse plus startle, prepulse alone, startle alone, and no stimulation. PPI is

measured as the amount of inhibition of startle following the prepulse and is expressed as the percentage of basic startle. As a control, measurements are taken in the no stimulation and prepulse alone trials. PPI is considered a test with good predictive, face and construct validity for schizophrenia. Putative antipsychotics can be tested alone to determine if they enhance PPI. Alternately, antipsychotics can be screened to determine if they block various agents that disrupt PPI (apomorphine, d-amphetamine, PCP, ketamine, DOI). Finally, mutant mice with or without drugs can be screened using the PPI procedure.

Anxiety Model

[0976] An elevated plus maze model may be used to assess the efficacy of anxiolytic compounds (see Pellow and File, *Pharm. Biochem. Behav.* 24, 525-529, 1986).

Elevated Plus Maze

[0977] The elevated plus maze is widely used as an anxiety paradigm that examines the conflict between the drive to explore and the aversiveness of heights and open spaces of rats or mice. The maze is a cross made up of two open and two closed arms that is raised above the ground. The combination of light, the open arms, and the height is thought to produce unconditioned fear or anxiety responses in mice or rats. The test apparatus is an open top maze constructed of opaque plastic with alternating open and enclosed arms. For rats, each arm is 45-55 cm long and 8-12 cm wide, with the sides of the enclosed arms 35-45 cm high, the juncture approximately 10x10 cm, and the maze is elevated 45-55 cm above the floor. The mouse elevated plus maze consists of two closed arms (15x6x30 cm) and two open arms (1x6x30 cm) forming a cross, with a quadrangular center (6x6cm). The maze is placed 50 cm above the floor. Testing is performed in a room free of noise and distraction. On test days animals are administered drug or vehicle. If a pretreatment period is necessary, the animals are returned to the home cage for the duration of the pretreatment time; otherwise, the animals are placed in a clear plastic holding chamber singly or with cage mates for 1-10 minutes prior to test time. Rats are then placed in the center of the maze always oriented in the same direction, either consistently facing an open arm or an enclosed arm. For 5-10 minutes, entries into each arm and the time spent in each arm are recorded by the observer(s) or by videotape or a computer receiving input from a video camera mounted above the maze. To count as an entry, all four paws must be inside the arm. If necessary, additional measures of anxiety-related behaviors will be recorded, i.e., time spent motionless, time spent in the center, time spent grooming, and the number of rears, stretching postures or feces produced. Following testing the animals are returned to the home cages. When animals are placed in the center of the maze, they spend most of their time in the closed arms, avoiding the open arms. Anxiolytic drugs, such as benzodiazepines, will increase the amount of time animals spend in the open arms. The test is also sensitive to anxiogenic drugs, which lends strong support for its predictive validity.

Erectile Dysfunction

[0978] Drugs affecting erectile function may be tested by measuring the effect on apomorphine-evoked increases in intracavernous pressure in the awake rat as described by Andersson, et al., (*J. Urol.* 161: 1707-1712, 1999). One end of a polyethylene tubing is implanted into the cavernosal space of the penis of male Sprague-Dawley rats. After recovery from the surgery, intracavernous pressure is

recorded using a pressure transducer connected to a multi-channel pen-recorder. Erections are induced by administration of apomorphine (100-250 ug/kg s.c.) with or without test compound, and the results are compared for the treated group and the non-treated group.

Female Sexual Dysfunction

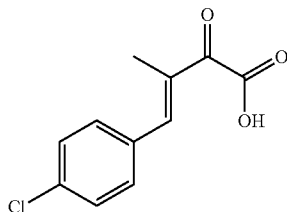
[0979] Systems to test compounds for the treatment of female sexual dysfunction include in vitro and in situ models using vaginal or clitoral smooth muscle preparations, histological evaluation, and vaginal blood flow assessments. In vivo studies of sexual responses focus on behavioral paradigms involving lordotic posturing and receptivity, as well as indices of motivation using a dual chamber pacing method (see, e.g., Hale, et al., *Int. J. Impot. Res.* 15 Suppl 5: S75-79, 2003).

[0980] The present invention is illustrated below with the aid of examples. These illustrations are given solely by way of example and do not limit the general spirit of the present invention.

EXAMPLES

Preparation of 4-(4-Chlorophenyl)-3-methyl-2-oxo-but-3-enoic acid

[0981]

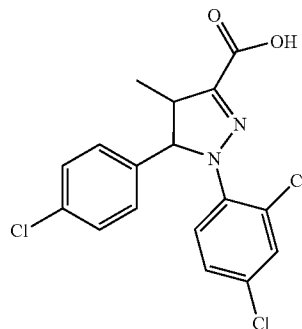


[0982] 4-Chlorobenzaldehyde (1.4 g, 10 mmol) was dissolved in MeOH (1 mL) and 2-oxobutyric acid (1 g, 9.8 mmol) was subsequently added. A third of a 2 M KOH solution (0.84 g) in MeOH (2.5 mL) was added drop wise at a rate that the temperature of the reaction medium did not rise above 27° C. The remaining alkaline solution was added quickly causing an increase of the temperature to 42° C. and the yellow colour of the solution turns into orange-red. After approximately five minutes a voluminous and yellow precipitate appeared. After 30 min, water (5 mL) was added and the organic layer was separated. After extraction with tert-butyl methyl ether (8 mL), the aqueous phase was acidified with conc. HCl to pH 1 and thoroughly extracted with tert-butyl methyl ether (3x8 mL). The combined organic layers were washed with aq. NaCl solution, dried with Na₂SO₄, and evaporated to dryness to afford a cream-white solid (0.88 g, 40% yield). Recrystallization of 0.6 g of the crude solid in hexane (40 mL) and ethyl acetate (5 mL) afforded 0.44 g of pure product (80% recovery).

[0983] ¹H NMR (400 MHz, CDCl₃): δ 2.17 (3H, s, CH₃), 7.44 (4H, d, J 3.28 Hz, ArH), 8.41 (1H, s, CH); ¹³C NMR (100 MHz, CDCl₃): δ 13.2 (CH₃), 129.2 (CH), 129.6(C), 131.9 (CH), 133.4 (C), 136.4 (C), 147.6 (CH), 164.4 (CO), 187.1 (CO)

Preparation of 5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

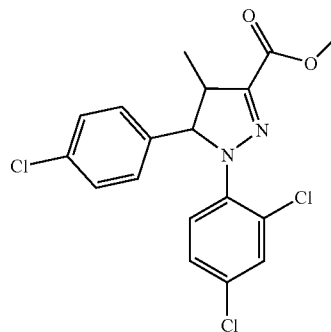
[0984]



[0985] A mixture of 4-(4-chlorophenyl)-3-methyl-2-oxo-but-3-enoic acid (0.72 g, 3.2 mmol) and 2,4-dichlorophenyl hydrazine hydrochloride (0.68 g, 3.2 mmol) in glacial acetic acid (10.6 mL) was heated under nitrogen atmosphere to reflux for 4 h. The crude mixture was allowed to cool down to room temperature and poured into ice. The dark mixture was extracted with dichloromethane, washed with aq. NaCl, dried over Na₂SO₄, and evaporated to dryness to yield 1.18 g of crude product (100% yield) as a mixture of two diastereomers. The ratio of the two diastereomers was determined by NMR spectroscopy to be 80:20.

Preparation of 5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester

[0986]



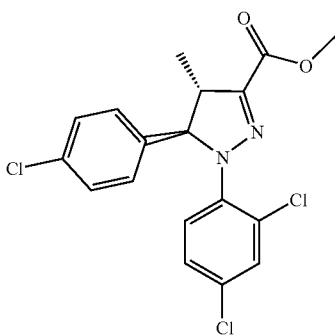
[0987] Methyl iodide (0.16 mL, 2.25 mmol) was added drop wise to a mixture of 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (0.47 g, 1.27 mmol) and KHCO₃ (0.19 g, 1.9 mmol) in anhydrous dimethylformamide (10 mL) under nitrogen atmosphere. The mixture was stirred at room temperature under nitrogen overnight (ca 16 h). Water was added, the mixture was extracted with ethyl acetate and the combined organic layers were thoroughly washed with aq. NaCl solution. After drying over Na₂SO₄ and evaporation under reduced pressure, 0.5 g of the crude product were obtained. Purification by column chromatography (SiO₂, 40:1 SiO₂,

packed with 100% hexane and eluted with a gradient of 1% to 5% ethyl acetate) affords 0.045 g (9% yield) of the minor isomer (RS and SR as a racemic mixture, trans isomer) and 0.23 g (48% yield) of the major isomer (RR and SS as a racemic mixture, cis isomer).

Example 24

Minor Isomer: trans-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester

[0988]



[0989] ^1H NMR (400 MHz, CDCl_3): δ 1.49 (3H, d, J 7.6 Hz, CH_3), 3.51 (1H, m, CH), 3.90 (3H, s, OCH_3), 5.32 (1H, d, J 5.6 Hz, CH), 7.03-7.10 (3H, m, ArH), 7.20 (2H, ap d J 8.4 Hz, ArH), 7.25-7.28 (2H, m, ArH)

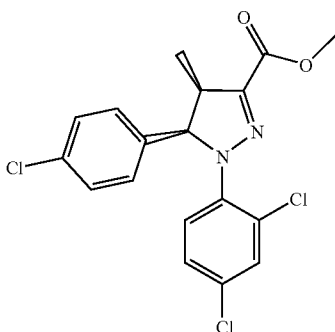
[0990] ^{13}C NMR (100 MHz, CDCl_3): δ 18.4 (CH_3), 49.6 (CH), 52.5 (OCH_3), 75.5 (CH), 126.2 (CH), 126.7 (C), 127.8 (CH), 128.1 (CH), 129.3 (CH), 130.4 (CH), 134.5 (C), 137.6 (C), 139.1 (C), 145.2 (C), 162.8 (CO)

[0991] MS (M+H)⁺: 398

Example 23

Major Isomer: cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester

[0992]



[0993] ^1H NMR (400 MHz, CDCl_3): δ 0.94 (3H, d, J 7.2 Hz, CH_3), 3.80 (1H, m, CH), 3.88 (3H, s, OCH_3), 5.82 (1H,

d, J 11.2 Hz, CH), 7.04-7.10 (3H, m, ArH), 7.22 (2H, m, ArH), 7.24-7.29 (2H, m, ArH)

[0994] ^{13}C NMR (100 MHz, CDCl_3): δ 17.8 (CH_3), 49.5 (CH), 52.7 (OCH_3), 75.7 (CH), 126.2 (CH), 127.7 (C), 127.9 (CH), 129.4 (CH), 130.4 (CH), 130.8 (C), 134.4 (C), 137.9 (C), 139.0 (C), 144.8 (C), 162.8 (CO)

[0995] MS (M+H)⁺: 398

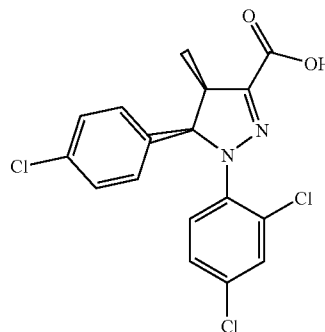
Hydrolysis of the Racemic Mixture of (RR)- and (SS)-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester

[0996] Aq. 2 M NaOH (6.4 mL) was added to a solution of the racemic mixture of (RR)- and (SS)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester (0.36 g, 0.9 mmol) in THF (6.4 mL). The mixture was left to stir at room temperature for 3 h (until TLC showed disappearance of the starting material). Water was added and the reaction mixture was concentrated under reduced pressure. The residue was washed once with Et_2O and the aqueous phase acidified to pH 1 with 1 M HCl. Extraction with ethyl acetate, drying with Na_2SO_4 and concentration to dryness yielded pure acid (0.23 g, 68% yield).

Example 19

Major Isomer: cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[0997]



[0998] ^1H NMR (400 MHz, CHLOROFORM-d) δ ppm 0.96 (d, J=7.42 Hz, 3H) 3.82 (td, J=11.72, 7.42 Hz, 1H) 5.91 (d, J=11.72 Hz, 1H) 7.04 (d, J=8.60 Hz, 2H) 7.11 (dd, J=8.60, 2.34 Hz, 1H) 7.21-7.30 (m, 4H)

[0999] ^{13}C NMR (100 MHz, CDCl_3): δ 13.6 (CH_3), 43.5 (CH), 72.0 (CH), 124.9 (CH), 127.6 (CH), 129.1 (CH), 129.6 (CH), 130.9 (CH), 131.3 (C), 132.7 (C), 134.5 (C), 138.7 (C), 144.6 (C), 165.9 (CO).

[1000] MS (M+H)⁺: 384

Hydrolysis of the Racemic Mixture of (RS)- and (SR)-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester

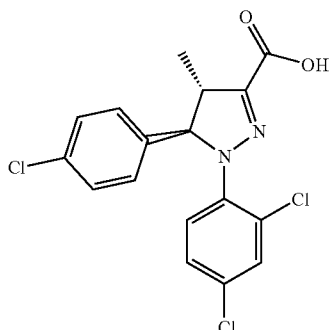
[1001] The hydrolysis was carried out as described above for the racemic mixture of (RR)- and (SS)-5-(4-Chlorophe-

nyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester

Example 20

Minor Isomer: trans-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1002]



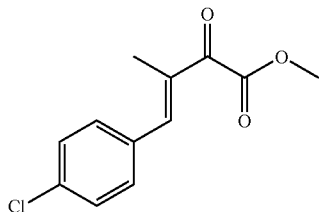
[1003] ^1H NMR (400 MHz, CHCl_3 -d) δ ppm 1.52 (d, $J=7.03$ Hz, 3H) 3.52 (m, 1H) 5.39 (d, $J=5.47$ Hz, 1H) 7.08 (ddd, $J=13.92$, 5.62, 5.28 Hz, 3H) 7.14-7.34 (m, 4H)

[1004] ^{13}C NMR (100 MHz, CDCl_3): δ 18.4 (CH_3), 48.9 (CH), 76.2 (CH), 126.4 (CH), 126.7 (C), 127.8 (CH), 128.0 (CH), 129.5 (CH), 130.5 (CH), 131.5 (C), 134.7 (C), 137.6 (C), 138.6 (C), 144.2 (C), 166.5 (CO).

[1005] MS ($\text{M}+\text{H}$) $^+$: 384

Preparation of 4-(4-Chlorophenyl)-3-methyl-2-oxo-but-3-enoic acid methyl ester

[1006]

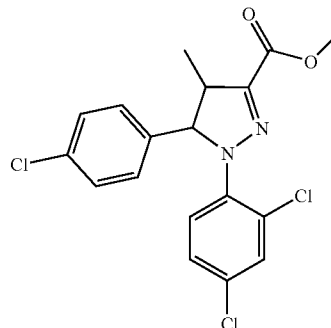


[1007] 4-(4-Chlorophenyl)-3-methyl-2-oxo-but-3-enoic acid (0.13 g, 0.58 mmol) was dissolved in Et_2O (0.8 mL) and EtOH (1.2 mL) and the solution was cooled down to 0°C . TMSCH_2N_2 (0.43 mL of a 2 M solution in Et_2O , 0.87 mmol) was added drop wise and the mixture was stirred at 0°C . for 1 h. A second portion of TMSCH_2N_2 (0.2 mL of a 2 M solution in Et_2O , 0.40 mmol) was added and the reaction was allowed to reach room temperature. After 30 min, the solvents were evaporated to dryness and the residue was taken up in a mixture of Et_2O /hexane 1:1 (10 mL). The organic layer was washed with 2% aq. HCl (10 mL), aq.

NaHCO_3 (10 mL) and aq. NaCl (10 mL), dried over Na_2SO_4 and concentrated to dryness to give pure product (68 mg, 49% yield).

Preparation of 5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester

[1008]

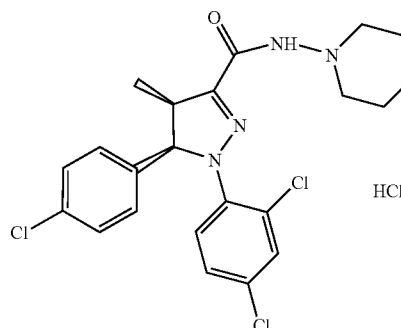


[1009] A mixture of 4-(4-chlorophenyl)-3-methyl-2-oxo-but-3-enoic acid methyl ester (0.4 g, 1.68 mmol) and 2,4-dichlorohydrazine hydrochloride (0.356 g, 1.68 mmol) in glacial acetic acid (4 mL) was heated at reflux under nitrogen atmosphere for 4 h. The reaction mixture was then allowed to cool down to room temperature and poured into ice. The dark mixture was extracted with dichloromethane, washed with aq. NaCl , dried over Na_2SO_4 and evaporated to dryness to yield the crude product (0.64 g, 95% yield, as a mixture of two diastereomers). Purification by column chromatography (SiO_2 , 40:1 SiO_2 , packed with 100% hexane and eluted with a gradient of 1% to 5% ethyl acetate) of 0.5 g of crude product afforded 0.051 g of the minor isomer (RS and SR as a racemic mixture) and 0.20 g of the major isomer (RR and SS as racemic mixture).

Preparation of Example 1

cis-5-(4-Chloro-phenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide Hydrochloride

[1010]



[1011] 5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (0.160 g,

0.417 mmol) was dissolved in toluene (4 mL) and was partially distilled at atmospheric pressure to eliminate water traces. The resulting solution was cooled to 75-85° C. DMF was added (2 drops) as a catalyst and thionyl chloride (0.060 mL, 0.5 mmol) was added drop by drop. The solution was stirred until formation of the acid chloride was complete (monitoring by IR). The mixture was cooled to 20-25° C. and was added drop wise to a solution of 1-aminopiperidine (0.053 mL, 0.500 mmol), dichloromethane (5 mL) and N,N-diisopropylethylamine (0.170 mL, 1 mmol) under nitrogen at a temperature between 5-10° C. After complete addition the mixture was warmed to 20-25° C. and stirred overnight. The organic layer was washed with water (3×5 mL), a sat. NaHCO₃ solution (3×25 mL) and again with water (3×5 mL). The combined organic layers were dried with Na₂SO₄, filtered and concentrated under vacuum to give a solid (130 mg, 68% yield).

[1012] The crude solid was dissolved in ethyl acetate and a 2.8 M HCl solution in ethanol was added drop wise to form the hydrochloride which was obtained as a beige solid (82 mg, 49% yield).

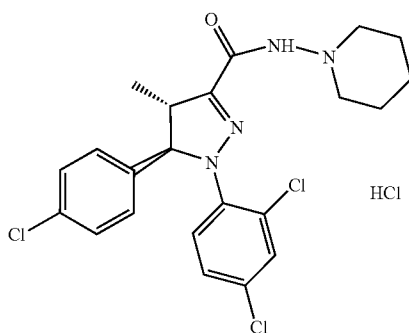
[1013] ¹H NMR (400 MHz, METHANOL-d₄) δ ppm 0.94 (d, J=7.42 Hz, 3H) 1.68 (br, 2H) 1.98 (dt, J=11.28, 5.59 Hz, 4H) 3.53 (br, 4H) 3.90 (td, J=11.53, 7.42 Hz, 1H) 5.99 (d, J=11.53 Hz, 1H) 7.16 (d, J=8.40 Hz, 2H) 7.20-7.29 (m, 3H) 7.36-7.48 (m, 2H)

[1014] MS (M+H)⁺: 466

Example 2

trans-5-(4-Chloro-phenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide Hydrochloride

[1015]



[1016] 5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (0.190 g, 0.50 mmol) was dissolved in toluene (4 mL) and was partially distilled at atmospheric pressure to eliminate water traces. The resulting solution was cooled to 75-85° C. DMF was added (2 drops) as a catalyst and thionyl chloride (0.060 mL, 0.5 mmol) was added drop by drop. The solution was stirred until formation of the acid chloride was complete (monitoring by IR). The mixture was cooled to 20-25° C. and was added drop wise to a solution of 1-aminopiperidine (0.0623 mL, 0.57 mmol), dichloromethane (5 mL) and N,N-diisopropylethylamine (0.197 mL, 1.15 mmol) under

nitrogen at a temperature between 5-10° C. After complete addition the mixture was warmed to 20-25° C. and stirred overnight. The organic layer was washed with water (3×5 mL), a sat. NaHCO₃ solution (3×25 mL) and again with water (3×5 mL). The combined organic layers were dried with Na₂SO₄, filtered and concentrated under vacuum to give a solid. The crude solid was dissolved in ethyl acetate and a 2.8 M HCl solution in ethanol was added drop wise to form the hydrochloride which was obtained as a beige solid (120 mg, 50% yield).

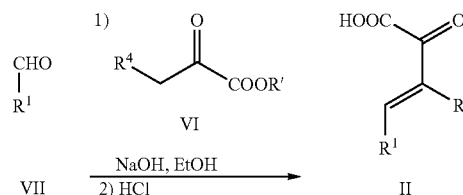
[1017] ¹H NMR (400 MHz, DMSO-d₆) δ ppm 1.38 (d, J=7.03 Hz, 3H) 1.42 (m, 2H) 1.71 (m, 4H) 3.12 (m, 4H) 3.42 (dt, J=13.38, 5.86 Hz, 1H) 5.36 (d, J=5.86 Hz, 1H) 7.19 (d, J=8.21 Hz, 2H) 7.31 (d, J=8.60 Hz, 3H) 7.49 (d, J=2.34 Hz, 1H) 7.53 (d, J=8.60 Hz, 1H) 10.49 (s, 1H)

[1018] MS (M+H)⁺: 466

[1019] The following compounds were prepared according to the processes described above. Those skilled in the art are familiar with the starting materials that are needed to obtain said compounds.

Preparation of Compounds of General Formula II

[1020]



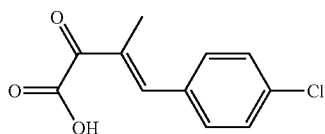
[1021] Acid of general formula VI (1.1 equivalents) was added in portions to a solution of 0.5 M aqueous NaOH (1.5 equivalents) under N₂ at room temperature. The reaction was then left stirring for 5 min and a solution of a compound of general formula VII (1 equivalent) in abs. EtOH (0.9 M) was then slowly added (10 mL/h). The reaction was left stirring at 25° C. overnight.

[1022] Water was added and the solvent was evaporated under reduced pressure to eliminate the excess of EtOH. The solution was then washed with toluene and the solvent was again evaporated. The aqueous solution was then cooled in an ice bath and conc. aqueous HCl (0.2 mL of conc. HCl per mL of base) were slowly added while stirring. A white solid precipitated from the solution which was kept at 0° C. for another hour. The solid was filtered under vacuum through a sintered funnel (porosity 3) and dried at 40° C. under vacuum.

[1023] As an example, if the starting material was 2-oxobutyric acid, the yield range for this reaction condensation was around 60-86%. However, if the starting material was 2-oxopentanoic acid (oxovaleric acid) instead of 2-oxobutyric acid, the yield of the reaction was slightly lower (around 40-60%)

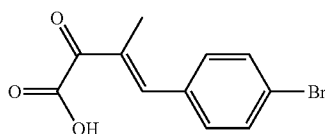
Compound A1 (E)-4-(4-chlorophenyl)-3-methyl-2-oxobut-3-enoic acid

[1024]

[1025] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 2.17 (3H, s, CH_3), 7.44 (4H, ap d, $J=3.28$ Hz, ArH), 8.41 (1H, s, CH).

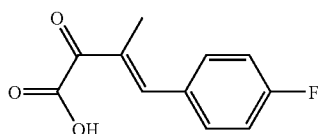
Compound A2 (E)-4-(4-bromophenyl)-3-methyl-2-oxobut-3-enoic acid

[1026]

[1027] $^1\text{H NMR}$ (400 MHz, CD_3OD): δ 1.99 (3H, s, CH_3), 7.36 (2H, d, $J=8.5$ Hz, ArH), 7.40 (1H, s, CH), 7.53 (2H, d, $J=8.5$ Hz, ArH).

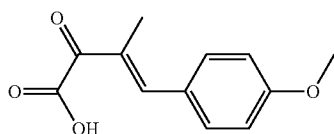
Compound A3 (E)-4-(4-fluorophenyl)-3-methyl-2-oxobut-3-enoic acid

[1028]

[1029] $^1\text{H NMR}$ (300 MHz, DMSO-d_6): δ 2.18 (3H, s, CH_3), 7.20 (2H, m), 7.53 (2H, m), 8.26 (1H, s, CH).

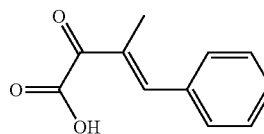
Compound A4 (E)-4-(4-methoxyphenyl)-3-methyl-2-oxobut-3-enoic acid.

[1030] This compound was prepared following the method described above but using instead 3 eq. of NaOH.

[1031] $^1\text{H NMR}$ (200 MHz, CDCl_3): δ 2.09 (3H, s, CH_3), 3.84 (3H, s, OCH_3), 7.01 (2H, d, $J=8.8$ Hz, ArH), 7.50 (1H, s, CH), 7.52 (2H, d, $J=8.8$ Hz, ArH).

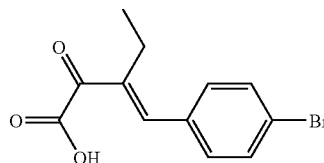
Compound A5 (E)-3-methyl-2-oxo-4-phenylbut-3-enoic acid

[1032]

[1033] $^1\text{H NMR}$ (200 MHz, CDCl_3): δ 2.19 (3H, s, CH_3), 7.33-7.51 (5H, m, ArH), 8.36 (1H, s, CH)

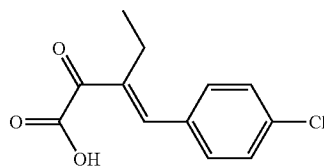
Compound A6 (E)-4-(4-bromophenyl)-3-ethyl-2-oxobut-3-enoic acid

[1034]

[1035] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 1.16 (3H, t, J 7.5 Hz, CH_3), 2.62 (2H, q, J 7.5 Hz, CH_2), 7.35 (2H, d, J 8.4 Hz, ArH), 7.59 (2H, d, J 8.4 Hz, ArH), 8.23 (1H, s, CH).

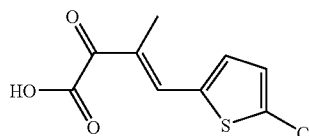
Compound A7 (E)-4-(4-chlorophenyl)-3-ethyl-2-oxobut-3-enoic acid

[1036]

[1037] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 1.16 (3H, t, J 7.2 Hz, CH_3), 2.61 (2H, q, J 15.6 Hz, J 7.2 Hz ArH), 7.44 (4H, m, ArH), 7.85 (1H, bs, CH).

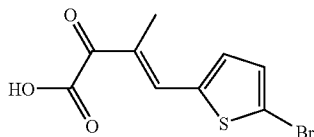
Compound A8 (E)-4-(5-chlorothiophen-2-yl)-3-methyl-2-oxobut-3-enoic acid

[1038]

[1039] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 2.09 (3H, s, CH_3), 7.10 (1H, d, J 4.8, ArH), 7.32 (1H, d, J 4.8 Hz, ArH), 7.64 (1H, s, ArH).

Compound A9 (E)-4-(5-bromothiophen-2-yl)-3-methyl-2-oxobut-3-enoic acid

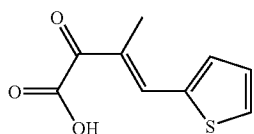
[1040]



[1041] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 2.19 (3H, d, J 0.9 Hz, CH_3), 7.19 (1H, d, J 3.7 Hz thiophene H), 7.27 (1H, d, J 3.7 Hz, thiophene H), 8.74 (1H, bs, CH).

Compound A10 (E)-3-methyl-2-oxo-4-(thiophen-2-yl)but-3-enoic acid

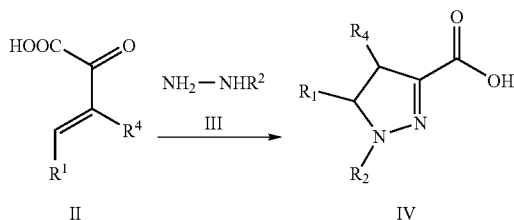
[1042]



[1043] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 2.25 (3H, s, CH_3), 7.22 (1H, dd, J 5.1, 3.6 Hz, ArH), 7.52 (1H, d, J 3.6 Hz, ArH), 7.72 (1H, d, J 5.1, Hz, ArH), 8.68 (1H, s, CH).

Preparation of Compounds of General Formula V

[1044]



[1045] A suspension of a compound of general formula III (1 equivalent) in glacial acetic acid (40 equivalents) was heated at 80°C . under nitrogen atmosphere. When the suspension became a solution, a solution of acid of general formula II (1 equivalent) in acetic acid (20 equivalents) was added and the solution was left stirring at 80°C . for 2 h. The reaction mixture was allowed to crystallise at $0-4^\circ\text{C}$. overnight after partial evaporation of acetic acid. The beige solid formed was filtered off under vacuum through a sintered funnel (porosity 4) and washed several times with water. This crystallization process led to the major diastereomeric acid with cis configuration. The yield range for the cyclization with hydrazine to obtain the main diastereomer was around 46-80%.

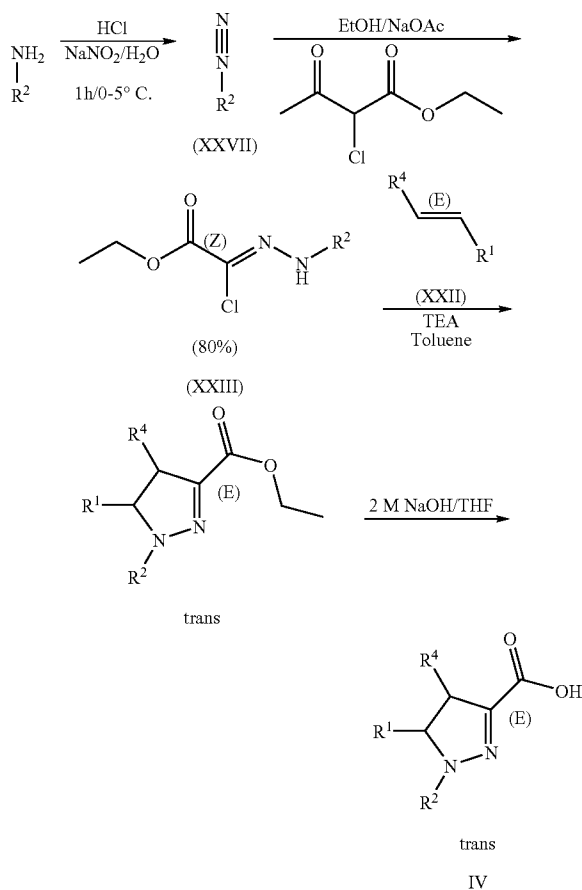
[1046] The reaction mixture can also be cooled down to room temperature and poured through an addition funnel into water which is cooled in an ice bath with magnetically stirring. The addition must be slow and at least double volume of water per volume of acetic acid is required. A precipitate should form, but in the case a gum starts to form, it should be filtered and the rest of the material should be poured into another large volume of water. The solid obtained is suspended in water several times and filtered off until the pH of the water was above 3. This solid also corresponds to the cis form.

[1047] Alternatively, the dark mixture can be extracted with dichloromethane washed thoroughly with H_2O , dried over Na_2SO_4 and evaporated to dryness. Recrystallisation of the crude material from toluene (3 to 4 mL of toluene per gram of material) allows the recovery of the major diastereomer with cis configuration.

[1048] Formation of the methyl esters as described in the method above, followed by purification by column chromatography, allows for the separation of the two diastereoisomers.

Preparation of Compounds of General Formula IV with Trans-configuration

[1049]



[1050] A solution of NaNO_2 (0.460 mg, 6.68 mmol) in water (0.8 ml) was added to a stirred solution of an amine, wherein R^2 denotes an unsubstituted or at least mono-substituted phenyl radical, (6.17 mmol) and concentrated hydrochloric acid (1.5 ml) in ice (1.5 ml). The reaction mixture was stirred for 1 h at $0-5^\circ\text{C}$. and added to a cold mixture of NaOAc (1.64 g, 19.6 mmol), ethanol (26 ml) and ethyl-2-chloro-3-oxobutanoate (1.0 g, 6.06 mmol). The reaction mixture was left stirring for 1 hour until a precipitate formed which was collected by filtration, washed with ethanol and dichloromethane and dried in vacuo to give the yellow solid ethyl of general formula XXIII (70-80% yield), which was used in the next step without any further purification.

[1051] Triethylamine (2.8 eq) was added to a solution of a compound of general formula XXIII (1 eq) and a disub-

stituted (E)-alkene of general formula XXII (3 eq) in toluene, and the reaction mixture was stirred at reflux temperature for 1 hour. A precipitate formed which was removed by filtration after cooling to room temperature. The filtrate was concentrated and purified using a Combiflash system from Isco, eluted with cyclohexane and ethyl acetate (in a gradient program until 30% AcOEt), to obtain ethyl ester derivatives of compounds of general formula IV, (~40% yield).

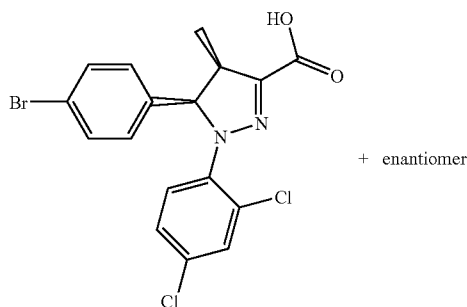
[1052] Ethyl esters derivatives of compounds of general formula IV were hydrolysed in the presence of aqueous 2 M NaOH (2 eq) and tetrahydrofuran for 4 hours. Tetrahydrofuran was partially removed by evaporation, 1 M aqueous HCl was added until pH was below 3 and the aqueous mixture was extracted with ethyl acetate, dried over Na_2SO_4 , filtered and concentrated in vacuo to yield a white solid identified as carboxylic acid of general formula IV (85% yield).

[1053] The enantiomers of each acid (cis or trans) can be separated by chiral HPLC or by crystallization of the diastereomeric salts formed with chiral amines.

Example 199

cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1054]



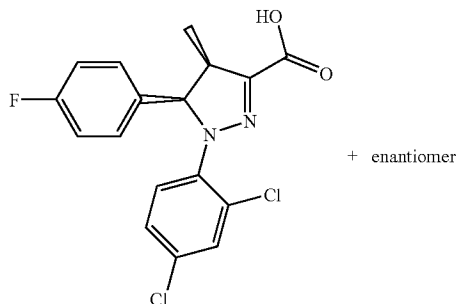
[1055] IR (NaCl film, cm^{-1}): 2976, 1683, 1541, 1486, 1385, 1270, 1242, 1116.

[1056] ^1H NMR (400 MHz, CDCl_3): δ 0.96 (3H, d, $J=7.3$ Hz, CH_3), 3.82 (1H, qd, $J=11.9, 7.3, 7.3$ Hz, 1H), 5.88 (1H, d, $J=11.9$ Hz, CH), 6.99 (2H, ap d, $J=8.4$ Hz, ArH), 7.12 (1H, dd, $J=8.7, 2.3$ Hz, 1H), 7.17 (1H, m, ArH), 7.27 (1H, m, ArH), 7.39 (2H, d, $J=8.4$ Hz, ArH).

Example 221

cis-5-(4-fluorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1057]



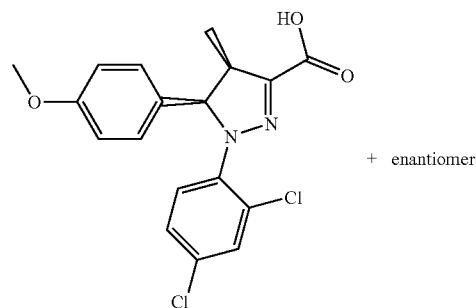
[1058] IR (NaCl film, cm^{-1}): 2978, 1682, 1486, 1471, 1264, 1117.

[1059] ^1H NMR (400 MHz, CHLOROFORM-d) δ ppm 0.97 (d, $J=7.42$ Hz, 3H) 3.82 (td, $J=11.72, 7.42$ Hz, 1H) 5.91 (d, $J=12.0$ Hz, 1H), 6.95 (m, 2H), 7.10 (m, 3H), 7.20 (d, $J=9.0$ Hz, 1H), 7.30 (d, $J=3.0$ Hz, 1H).

Example 261

cis-5-(4-methoxyphenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1060]



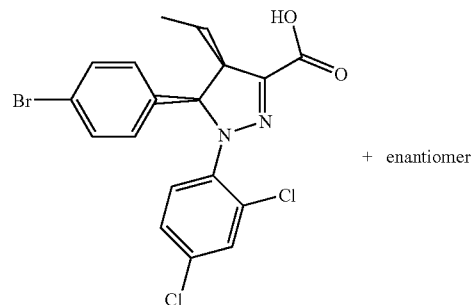
[1061] IR (NaCl film, cm^{-1}): 2936, 2836, 1681, 1612, 1512, 1480, 1460, 1248, 1113.

[1062] ^1H NMR (400 MHz, CDCl_3): δ 0.97 (3H, d, $J=7.3$ Hz, CH_3), 3.74 (3H, s, OCH_3), 3.80 (1H, m, 1H), 5.88 (1H, d, $J=11.8$ Hz, CH), 6.76 (2H, ap d, $J=8.6$ Hz, ArH), 7.00 (2H, d, $J=8.6$, ArH), 7.09 (1H, dd, $J=8.6, 2.3$ Hz, ArH), 7.16-7.28 (2H, m, ArH).

Example 185

cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1063]



[1064] IR (NaCl film, cm^{-1}): 2969, 1682, 1480, 1452, 1270, 1236, 1151, 1106.

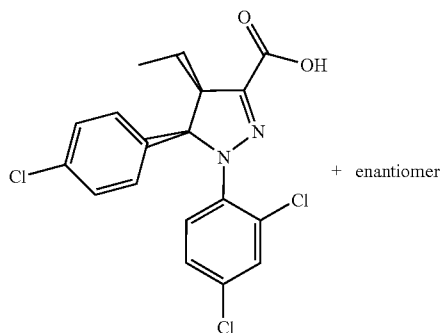
[1065] ^1H NMR (400 MHz, CDCl_3): δ 0.69 (3H, t, $J=7.4$ Hz, CH_3), 1.28-1.34 (1H, m, CHH), 1.95-2.00 (1H, m, CHH), 3.68 (1H, ddd, $J=11.5, 9.7, 4.0$ Hz, CH), 5.92 (1H, d, $J=11.5$ Hz, CH), 7.02 (2H, ap d, $J=8.4$ Hz, ArH), 7.09 (1H, dd, $J=8.7, 2.4$ Hz, ArH), 7.20 (1H, d, $J=8.7$ Hz, ArH), 7.28 (1H, d, $J=2.4$ Hz, ArH), 7.36 (2H, ap d, $J=8.4$ Hz, ArH);

[1066] ^{13}C NMR (100 MHz, CDCl_3): δ 12.4 (CH_3), 20.0 (CH_2), 50.5 (CH_3), 52.3 (OCH_3), 72.0 (CH), 122.5 ©, 124.8 (CH), 127.4 ©, 127.5 (CH), 129.9 (CH), 130.4 (CH), 131.1 ©, 131.7 (CH), 132.7 ©, 138.5 ©, 143.8 ©, 165.4 (CO).

Example 21

cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1067]

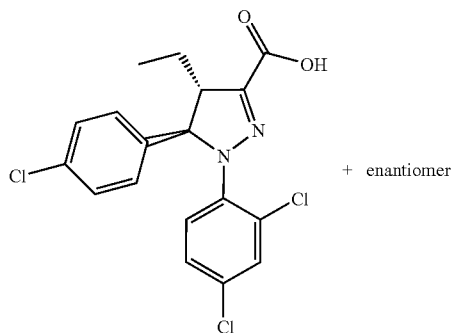


[1068] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 0.70 (3H, t, J 7.2 Hz, CH_3), 1.31 (1H, m, CHH), 2.01 (1H, m, CHH), 3.68 (1H, m, CH), 5.92 (1H, d, J 11.6 Hz, CH), 7.07-7.31 (7H, m, ArH).

Example 22

trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1069]

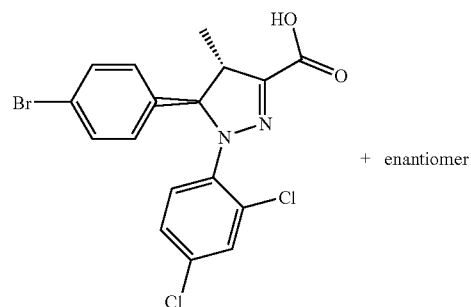


[1070] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 1.08 (3H, t, J 7.2 Hz, CH_3), 1.90 (1H, m, CHH), 1.96 (1H, m, CHH), 3.50 (1H, m, CH), 5.59 (1H, d, J 4.80 Hz, CH), 7.01-7.31 (7H, m, ArH).

Example 200

trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1071]

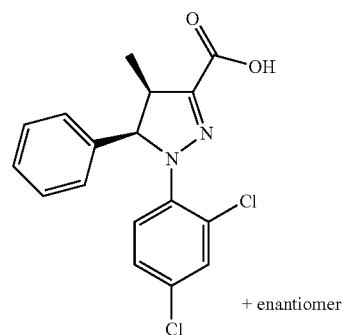


[1072] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 1.52 (3H, d, J=7.1 Hz, CH_3), 3.52 (1H, m, 1H), 5.35 (1H, d, J=5.8 Hz, CH), 7.00 (2H, ap d, J=8.4 Hz, ArH), 7.10 (1H, dd, J=8.7, 2.3 Hz, 1H), 7.22 (1H, d, J=8.7, ArH), 7.27 (1H, d, J=2.3 Hz, ArH), 7.37 (2H, d, J=8.4 Hz, ArH).

Example 373

cis-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1073]

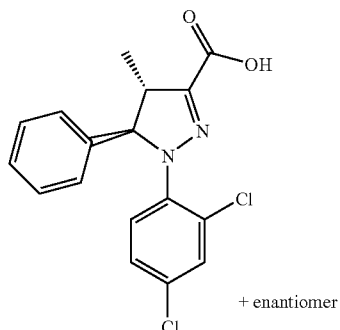


[1074] $^1\text{H NMR}$ (400 MHz, CDCl_3): δ 0.96 (3H, d, 7.6 Hz, CH_3), 3.82 (1H, m, CH), 3.88 (3H, s, OCH_3), 5.91 (1H, d, J 11.6 Hz, CH), 7.09-7.31 (8H, m, ArH)

Example 374

trans-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1075]



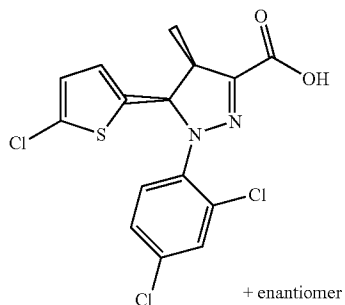
[1076] IR (NaCl film, cm^{-1}): 3400-2800, 1680, 1479, 1456, 1108

[1077] ^1H NMR (400 MHz, CDCl_3): δ 1.53 (3H, d, J 7.2 Hz, CH_3), 3.57 (1H, m, CH), 3.90 (3H, s, OCH_3), 5.37 (1H, d, J 5.6 Hz, CH), 7.06-7.28 (8H, m, ArH)

Example 361

cis-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1078]



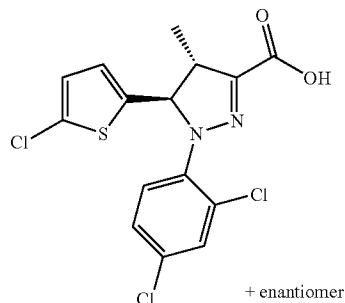
[1079] IR (NaCl film, cm^{-1}): 3400-2800, 1684, 1479, 1447, 1107.

[1080] ^1H NMR (400 MHz, CDCl_3): δ 1.24 (3H, d, J 7.2, CH_3), 3.81 (1H, m, CH), 6.09 (1H, d, J 12.0, CH), 6.64 (2H, ap dd, J_1 12.0, J_2 3.8 Hz, ArH), 7.16 (1H, dd, J_1 8.8, J_2 2.2 Hz, ArH), 7.32 (1H, d, J 2.2 Hz, ArH), 7.34 (1H, aps, ArH), 7.36 (1H, aps, ArH).

Example 362

trans-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1081]



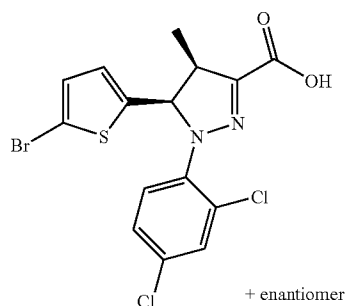
[1082] IR (NaCl film, cm^{-1}): 3400-2800, 1682, 1569, 1544, 1479, 1448, 1246, 1105.

[1083] ^1H NMR (400 MHz, CDCl_3): δ 1.50 (3H, d, J 7.1 Hz, CH_3), 3.64 (1H, m, CH), 5.6 (1H, d, J 3.9 Hz, CH), 6.60 (2H, aps, ArH), 7.12 (1H, dd, J_1 8.8, J_2 2.3 Hz, ArH), 7.27 (1H, m, ArH), 7.33 (1H, d, J 2.3 Hz, ArH).

Example 88

cis-5-(5-bromothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid

[1084]



[1085] IR (NaCl film, cm^{-1}): 3400-2800, 1682, 1569, 1545, 1479, 1459, 1245, 1105.

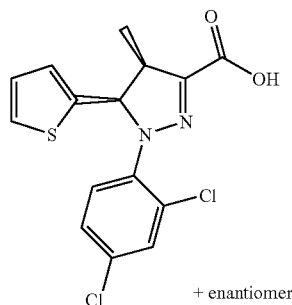
[1086] ^1H NMR (400 MHz, CDCl_3): δ 1.23 (3H, d, J 7.2 Hz, CH_3), 3.81 (1H, m, CH), 6.11 (1H, d, J 11.6 Hz, CH), 6.61 (1H, d, J 3.9 Hz, ArH), 6.80 (1H, d, J 4.4 Hz, ArH), 7.16 (1H, dd, J_1 8.4 Hz, J_2 3.0 Hz, ArH), 7.30-7.34 (2H, m, ArH).

[1087] ^{13}C NMR (100 MHz, CDCl_3): δ 12.3 (CH_3), 43.7 (CH), 69.5 (CH), 112.9 ©, 125.9 (CH), 126.8 ©, 127.8 (CH), 128.7 (CH), 129.7 (CH), 130.5 (CH), 131.8 ©, 137.8 ©, 138.6 ©, 144.9 ©, 164.5 (CO).

Example 367

cis-1-(2,4-dichlorophenyl)-4-methyl-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-carboxylic acid

[1088]

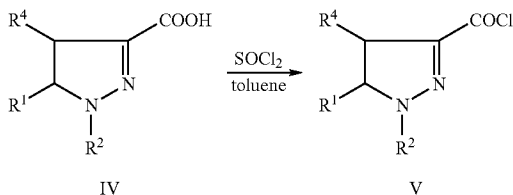


[1089] IR (NaCl film, cm^{-1}): 3400-2800, 1682, 1567, 1543, 1479, 1449, 1245, 1108.

[1090] ^1H NMR (400 MHz, CDCl_3): δ 1.19 (3H, d, J 7.2 Hz, CH_3), 3.83 (1H, m, CH), 6.22 (1H, d, J 11.2 Hz, CH), 6.84 (2H, m, ArH), 7.12 (2H, m, ArH), 7.29 (1H, d, J 2.3, ArH), 7.34 (1H, d, J 8.8 Hz, ArH).

Preparation of Compounds of General Formula V

[1091]



[1092] A compound of general formula IV (15 mmol) was dissolved in 120 mL of dry toluene and thionyl chloride (18 mmol) was added. The mixture was heated to 80°C . for 2.5 hours. The solvent was removed under reduced pressure and the resulting crude residue was used without any further purification.

Cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1093] IR (NaCl film, cm^{-1}): 1732, 1700, 1533, 1478, 1212, 826.

Cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1094] IR (NaCl film, cm^{-1}): 1731, 1527, 1477, 1204, 1153, 1132, 825, 802.

Cis-5-(4-fluorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1095] IR (NaCl film, cm^{-1}): 1731, 1509, 1478, 1227, 1153, 1132, 853, 803.

Cis-5-(4-methoxyphenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1096] IR (NaCl film, cm^{-1}): 1730, 1611, 1512, 1477, 1271, 1250, 1034, 831, 800.

Cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1097] IR (NaCl film, cm^{-1}): 1728, 1526, 1478, 1227, 1200, 1153, 1129, 834, 801.

Cis-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1098] IR (NaCl film, cm^{-1}): 1732, 1528, 1477, 1446, 1226, 1112, 808.

Trans-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1099] IR (NaCl film, cm^{-1}): 1730, 1531, 1479, 1204, 1122, 806.

Cis-5-(5-bromothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

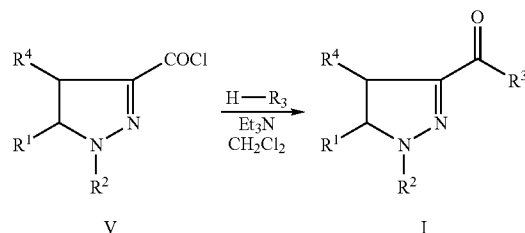
[1100] IR (NaCl film, cm^{-1}): 1732, 1528, 1477, 1109, 806

cis-1-(2,4-dichlorophenyl)-4-methyl-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carbonyl chloride

[1101] IR (NaCl film, cm^{-1}): 1731, 1527, 1477, 1224, 1111, 803.

Preparation of Compounds of General Formula I

[1102]



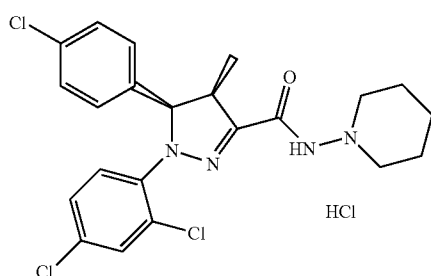
[1103] A compound of general formula $\text{R}^3\text{—H}$ (5.6 mmol) and triethylamine (4 mL) were dissolved in dichloromethane (25 mL) under nitrogen atmosphere. The resulting mixture was cooled to 0°C . and a solution of a compound of general formula V (4.6 mmol) in dichloromethane (15 mL) was added dropwise. The resulting reaction mixture was stirred at room temperature (approximately 25°C .) overnight, washed with water, saturated aqueous solution of sodium bicarbonate and again with water, dried over sodium sulfate, filtered and evaporated to dryness in a rotavapor. The residue was crystallized from ethanol, ethyl acetate or acetone. The crystallized solid was removed via filtration and the mother liquors were concentrated to yield a second fraction of crystallized product. The two fractions were combined to give the desired product (yield range: 60-80%). Alterna-

tively, a solution of 2 N HCl in diethyl ether or 2.8 N in ethanol was added to form the respective hydrochloride, which was collected by filtration.

Example 1

cis-5-(4-Chlorophenyl)-1-(2,4dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydrochloride

[1104]



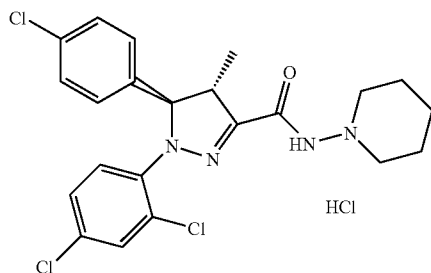
[1105] ^1H NMR (400 MHz, METHANOL- d_4) δ ppm 0.94 (d, $J=7.42$ Hz, 3H) 1.68 (br, 2H) 1.98 (dt, $J=11.28, 5.59$ Hz, 4H) 3.53 (br, 4H) 3.90 (td, $J=11.53, 7.42$ Hz, 1H) 5.99 (d, $J=11.53$ Hz, 1H) 7.16 (d, $J=8.40$ Hz, 2H) 7.20-7.29 (m, 3H) 7.36-7.48 (m, 2H)

[1106] MS (M+H) $^+$: 466

Example 2

trans-5-(4-Chloro-phenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydrochloride

[1107]



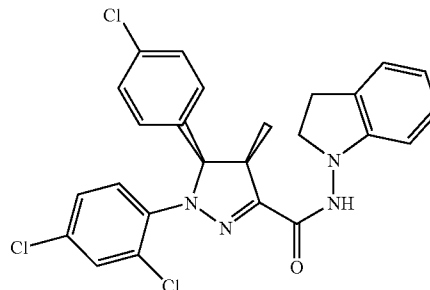
[1108] ^1H NMR (400 MHz, DMSO- d_6) δ ppm 1.38 (d, $J=7.03$ Hz, 3H) 1.42 (m, 2H) 1.71 (m, 4H) 3.12 (m, 4H) 3.42 (dt, $J=13.38, 5.86$ Hz, 1H) 5.36 (d, $J=5.86$ Hz, 1H) 7.19 (J=8.21 Hz, 2H) 7.31 (d, $J=8.60$ Hz, 3H) 7.49 (d, $J=2.34$ Hz, 1H) 7.53 (d, $J=8.60$ Hz, 1H) 10.49 (s, 1H)

[1109] MS (M+H) $^+$: 466

Example 15

cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1110]



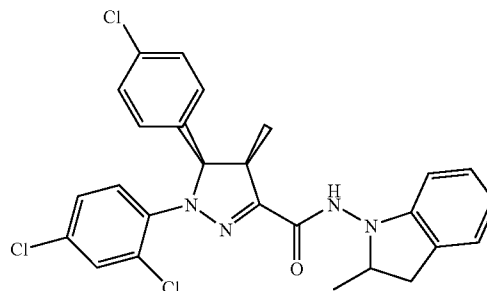
[1111] ^1H NMR (300 MHz, CHLOROFORM- d): δ ppm 0.97 (d, $J=7.18$ Hz, 3H) 3.08 (t, $J=7.98$ Hz, 2H) 3.67 (t, $J=7.98$ Hz, 2H) 3.86 (dd, $J=11.06, 7.40$ Hz, 1H) 5.69 (d, $J=11.28$ Hz, 1H) 6.73 (d, $J=7.76$ Hz, 1H) 6.88 (t, $J=7.40$ Hz, 1H) 7.02-7.12 (m, 5H) 7.15 (d, $J=7.76$ Hz, 2H) 7.24 (s, 1H) 7.33 (d, $J=1.61$ Hz, 1H) 7.99 (s, 1H)

[1112] MS (M+H) $^+$: 499

Example 113

cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(2-methylindolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

[1113]



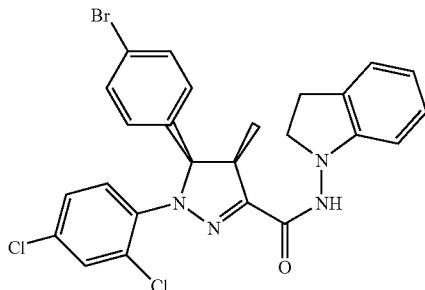
[1114] ^1H NMR (300 MHz, DMSO- d_6): δ ppm 0.81 (t, $J=7.40$ Hz, 3H) 1.29 (d, $J=5.86$ Hz, 3H) 2.54-2.65 (m, 1H) 3.14 (m, 1H) 3.92 (m, 2H) 5.99 (d, $J=11.28$ Hz, 1H) 6.45 (dd, $J=7.54, 2.86$ Hz, 1H) 6.68-6.82 (m, 1H) 6.96-7.23 (m, 4H) 7.30-7.36 (m, 3H) 7.48 (d, $J=2.05$ Hz, 1H) 7.71 (d, $J=8.79$ Hz, 1H) 10.09 (s, 1H)

[1115] MS (M+H) $^+$: 513

Example 215

cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazol-3-carboxamide

[1116]



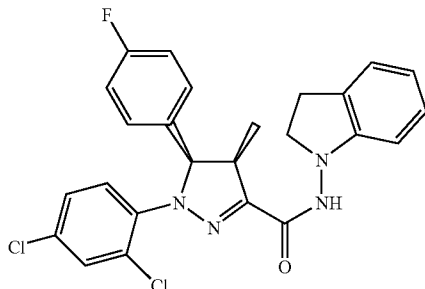
[1117] $^1\text{H NMR}$ (300 MHz, DMSO-d_6): δ ppm 0.80 (d, $J=7.18$ Hz, 3H) 2.96 (t, $J=8.50$ Hz, 2H) 3.59 (t, $J=8.50$ Hz, 2H) 3.89 (dd, $J=11.13, 7.18$ Hz, 1H) 5.95 (d, $J=11.13$ Hz, 1H) 6.49 (d, $J=7.62$ Hz, 1H) 6.75 (t, $J=7.03$ Hz, 1H) 6.99-7.14 (m, 4H) 7.31 (dd, $J=8.79, 2.49$ Hz, 1H) 7.42-7.50 (m, 3H) 7.66 (d, $J=8.79$ Hz, 1H) 10.19 (s, 1H)

[1118] MS (M+H)⁺: 543

Example 235

cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1119]



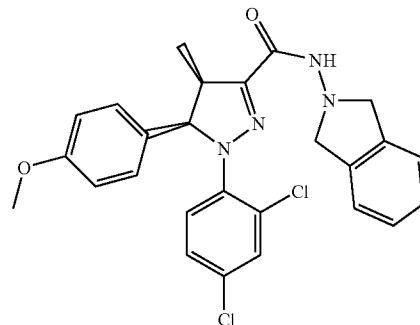
[1120] $^1\text{H NMR}$ (300 MHz, DMSO-d_6) δ ppm 0.80 (d, $J=7.32$ Hz, 3H) 2.96 (t, $J=8.50$ Hz, 2H) 3.59 (t, $J=8.50$ Hz, 2H) 3.87 (dd, $J=11.13, 7.32$ Hz, 1H) 5.96 (d, $J=11.13$ Hz, 1H) 6.49 (d, $J=7.62$ Hz, 1H) 6.75 (t, $J=7.40$ Hz, 1H) 7.00-7.19 (m, 6H) 7.30 (dd, $J=8.72, 2.42$ Hz, 1H) 7.47 (d, $J=2.34$ Hz, 1H) 7.67 (d, $J=8.79$ Hz, 1H) 10.18 (s, 1H)

[1121] MS (M+H)⁺: 483

Example 279

cis-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1122]



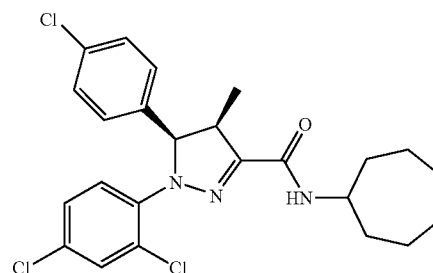
[1123] $^1\text{H NMR}$ (300 MHz, CHLOROFORM-d) δ ppm 0.99 (d, $J=7.18$ Hz, 3H) 3.08 (t, $J=7.98$ Hz, 2H) 3.68 (t, $J=7.91$ Hz, 2H) 3.76 (s, 3H) 3.83 (dd, $J=11.13, 7.18$ Hz, 1H) 5.68 (d, $J=11.13$ Hz, 1H) 6.79 (d, $J=8.50$ Hz, 2H) 6.74 (d, $J=7.76$ Hz, 1H) 6.88 (t, $J=7.40$ Hz, 1H) 7.02-7.09 (m, 4H) 7.16 (d, $J=7.47$ Hz, 2H) 7.32 (s, 1H) 8.01 (s, 1H)

[1124] MS (M+H)⁺: 495

Example 123

cis-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1125]



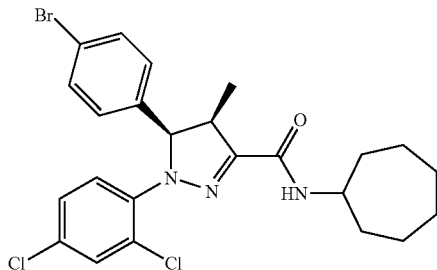
[1126] $^1\text{H NMR}$ (300 MHz, DMSO-d_6) δ ppm 0.76 (d, $J=7.18$ Hz, 3H) 1.39-1.70 (m, 10H) 1.78 (m, 2H) 3.83 (m, 2H) 5.89 (d, $J=10.99$ Hz, 1H) 7.14 (d, $J=8.35$ Hz, 2H) 7.32 (m, 3H) 7.49 (d, $J=2.34$ Hz, 1H) 7.62 (d, $J=8.79$ Hz, 1H) 8.04 (d, $J=8.06$ Hz, 1H)

[1127] MS (M+H)⁺: 478

Example 193

cis-5-(4-bromophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1128]



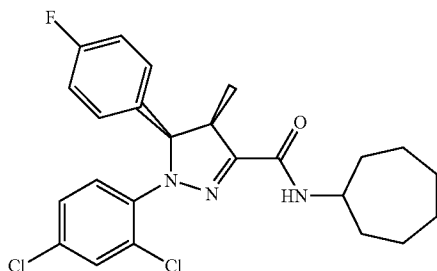
[1129] $^1\text{H NMR}$ (300 MHz, DMSO-d_6) δ ppm 0.74 (d, $J=7.18$ Hz, 3H) 1.35-1.66 (m, 10H) 1.78 (m, 2H) 3.72-3.90 (m, 2H) 5.85 (d, $J=10.99$ Hz, 1H) 7.06 (d, $J=8.35$ Hz, 2H) 7.30 (dd, $J=8.72, 2.27$ Hz, 1H) 7.44 (d, $J=8.35$ Hz, 2H) 7.47 (d, $J=2.20$ Hz, 1H) 7.60 (d, $J=8.79$ Hz, 1H) 8.02 (d, $J=8.20$ Hz, 1H)

[1130] MS (M+H)⁺: 522

Example 231

cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1131]



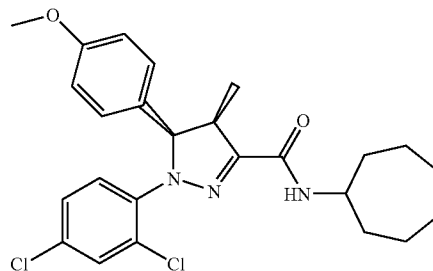
[1132] $^1\text{H NMR}$ (300 MHz, DMSO-d_6) δ ppm 0.75 (d, $J=7.32$ Hz, 3H) 1.36-1.67 (m, 10H) 1.71-1.85 (m, 2H) 3.70-3.90 (m, 2H) 5.86 (d, $J=10.99$ Hz, 1H) 7.02-7.18 (m, 4H) 7.29 (dd, $J=8.79, 2.34$ Hz, 1H) 7.46 (d, $J=2.34$ Hz, 1H) 7.61 (d, $J=8.79$ Hz, 1H) 8.02 (d, $J=8.20$ Hz, 1H)

[1133] MS (M+H)⁺: 462

Example 275

cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1134]



[1135] $^1\text{H NMR}$ (300 MHz, DMSO-d_6) δ ppm 0.75 (d, $J=7.32$ Hz, 3H) 1.36-1.67 (m, 10H) 1.75-1.86 (m, 2H) 3.65 (s, 3H) 3.72 (dd, $J=10.99, 7.32$ Hz, 1H) 3.82 (dd, $J=8.72, 4.47$ Hz, 1H) 5.79 (d, $J=10.99$ Hz, 1H) 6.77 (d, $J=8.64$ Hz, 2H) 7.01 (d, $J=8.64$ Hz, 2H) 7.27 (dd, $J=8.79, 2.34$ Hz, 1H) 7.44 (d, $J=2.34$ Hz, 1H) 7.61 (d, $J=8.79$ Hz, 1H) 7.99 (d, $J=8.20$ Hz, 1H)

[1136] MS (M+H)⁺: 474

Example 128

(+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

[1137] $^1\text{H NMR}$ (300 MHz, CHLOROFORM-d) δ ppm 0.94 (d, $J=7.32$ Hz, 3H) 1.19-1.45 (m, 4H) 1.76 (m, 2H) 2.00 (m, 1H) 2.09 (m, 1H) 3.43 (m, 1H) 3.78 (m, 2H) 5.66 (d, $J=11.28$ Hz, 1H) 6.65 (d, $J=7.32$ Hz, 1H) 7.00-7.15 (m, 4H) 7.24 (m, 2H) 7.33 (s, 1H)

[1138] MS (M+H)⁺: 480

Example 129

(-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

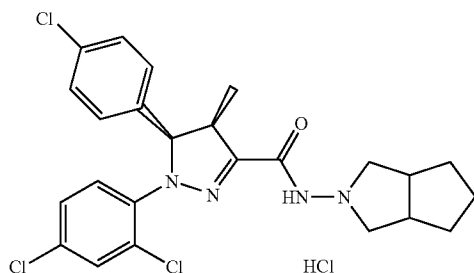
[1139] $^1\text{H NMR}$ (300 MHz, CHLOROFORM-d) δ ppm 0.93 (d, $J=7.32$ Hz, 3H) 1.24-1.40 (m, 4H) 1.75 (m, 2H) 2.06 (m, 2H) 3.39 (m, 1H) 3.75 (m, 2H) 5.64 (d, $J=11.13$ Hz, 1H) 6.68 (d, $J=7.32$ Hz, 1H) 7.00-7.13 (m, 4H) 7.23 (d, $J=8.50$ Hz, 2H) 7.35 (d, $J=2.20$ Hz, 1H)

[1140] MS (M+H)⁺: 480

Example 108

cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta-[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1141]



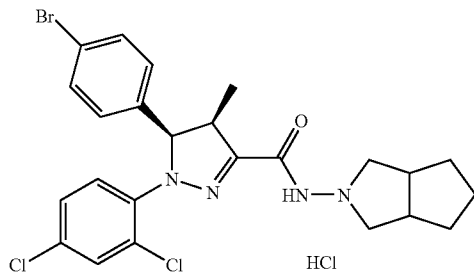
[1142] ^1H NMR (300 MHz, DMSO- d_6) δ ppm 0.79 (d, $J=7.18$ Hz, 3H) 1.49 (d, $J=7.76$ Hz, 2H) 1.61 (m, 4H) 2.66 (br. S., 2H) 2.86 (m, 2H) 3.54 (br. S., 2H) 3.85 (m, 1H) 5.96 (d, $J=11.28$ Hz, 1H) 7.17 (d, $J=8.35$ Hz, 2H) 7.35 (m, 3H) 7.55 (d, $J=2.20$ Hz, 1H) 7.62 (d, $J=8.64$ Hz, 1H) 10.52 (br. S., 1H)

[1143] MS (M+H)⁺: 491

Example 213

cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta-[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1144]



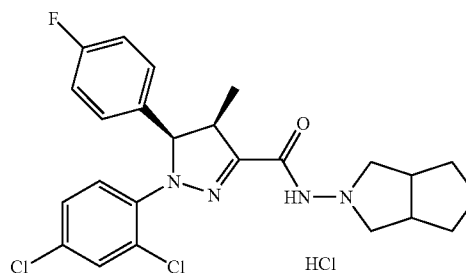
[1145] ^1H NMR (300 MHz, DMSO- d_6) δ ppm 0.77 (d, $J=7.32$ Hz, 3H) 1.47 (d, $J=7.47$ Hz, 2H) 1.58-1.64 (m, 4H) 2.64 (br. S., 2H) 2.83 (dd, $J=16.70, 7.47$ Hz, 2H) 3.52 (br. S., 2H) 3.83 (dd, $J=11.21, 7.40$ Hz, 1H) 5.92 (d, $J=11.13$ Hz, 1H) 7.08 (d, $J=8.20$ Hz, 2H) 7.33 (dd, $J=8.72, 2.27$ Hz, 1H) 7.46 (d, $J=8.35$ Hz, 2H) 7.52 (d, $J=2.20$ Hz, 1H) 7.59 (d, $J=8.79$ Hz, 1H) 10.47 (br. S., 1H)

[1146] MS (M+H)⁺: 535

Example 233

cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-(hexahydrocyclopenta-[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1147]



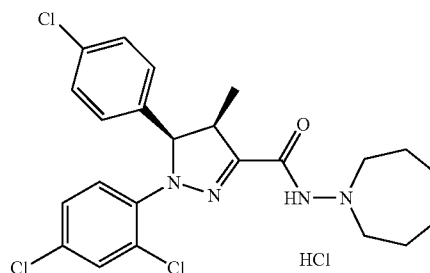
[1148] ^1H NMR (300 MHz, DMSO- d_6) δ ppm 0.77 (d, $J=7.32$ Hz, 3H) 1.47 (d, $J=8.64$ Hz, 2H) 1.55-1.67 (m, 4H) 2.63 (br. S., 2H) 2.81 (dd, $J=15.16, 8.86$ Hz, 2H) 3.49 (br. S., 3H) 5.93 (d, $J=1.28$ Hz, 1H) 7.01-7.25 (m, 4H) 7.32 (dd, $J=8.72, 2.42$ Hz, 1H) 7.51 (d, $J=2.34$ Hz, 1H) 7.60 (d, $J=8.64$ Hz, 1H) 10.35 (br. S., 1H)

[1149] MS (M+H)⁺: 475

Example 96

cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1150]



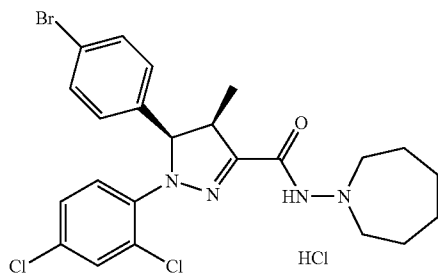
[1151] ^1H NMR (300 MHz, DMSO- d_6) δ ppm 0.78 (d, $J=7.18$ Hz, 3H) 1.58 (br. S., 4H) 1.76 (br. S., 4H) 3.32 (br. S., 4H) 3.85 (m, 1H) 5.95 (d, $J=11.28$ Hz, 1H) 7.15 (d, $J=8.50$ Hz, 2H) 7.23-7.36 (m, 3H) 7.51 (d, $J=2.34$ Hz, 1H) 7.61 (d, $J=8.79$ Hz, 1H) 10.89 (br. S., 1H)

[1152] MS (M+H)⁺: 479

Example 207

cis-N-azepan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1153]



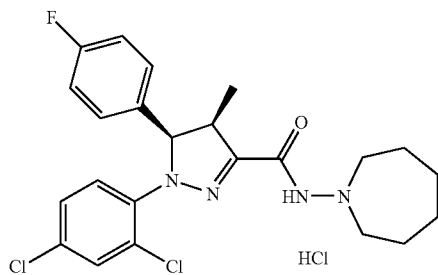
[1154] ^1H NMR (300 MHz, DMSO- d_6) δ ppm 0.78 (d, $J=7.18$ Hz, 3H) 1.58 (br. S., 4H) 1.77 (br. S., 4H) 3.33 (br. S., 4H) 3.85 (dd, $J=11.28$, 7.18 Hz, 1H) 5.94 (d, $J=11.28$ Hz, 1H) 7.08 (d, $J=8.35$ Hz, 2H) 7.34 (dd, $J=8.72$, 2.27 Hz, 1H) 7.46 (d, $J=8.35$ Hz, 2H) 7.52 (d, $J=2.34$ Hz, 1H) 7.61 (d, $J=8.64$ Hz, 1H) 10.98 (br. S., 1H)

[1155] MS (M+H) $^+$: 523

Example 227

cis-N-azepan-1-yl)-5-(4-fluorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1156]



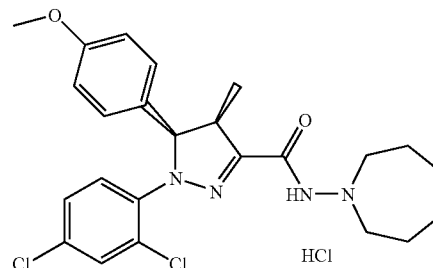
[1157] ^1H NMR (300 MHz, DMSO- d_6) δ ppm 0.78 (d, $J=7.32$ Hz, 3H) 1.59 (br. S., 4H) 1.78 (br. S., 4H) 3.36 (br. S., 4H) 3.84 (dd, $J=11.43$, 7.32 Hz, 1H) 5.96 (d, $J=11.43$ Hz, 1H) 6.99-7.21 (m, 4H) 7.33 (dd, $J=8.79$, 2.20 Hz, 1H) 7.51 (d, $J=2.34$ Hz, 1H) 7.63 (d, $J=8.79$ Hz, 1H), 11.06 (br. S., 1H)

[1158] MS (M+H) $^+$: 463

Example 271

cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1159]



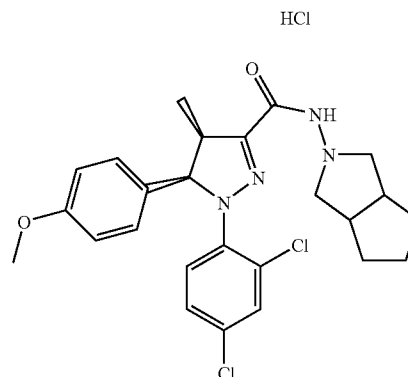
[1160] ^1H NMR (300 MHz, DMSO- d_6) δ ppm 0.80 (d, $J=7.18$ Hz, 3H) 1.59 (br. S., 4H) 1.79 (br. S., 4H) 3.38 (d, $J=4.54$ Hz, 4H) 3.66 (s, 3H) 3.80 (dd, $J=11.28$, 7.32 Hz, 1H) 5.89 (d, $J=11.28$ Hz, 1H) 6.78 (d, $J=8.50$ Hz, 2H) 7.03 (d, $J=8.50$ Hz, 2H) 7.32 (dd, $J=8.79$, 2.34 Hz, 1H) 7.49 (d, $J=2.34$ Hz, 1H) 7.63 (d, $J=8.79$ Hz, 1H) 11.12 (br. S., 1H)

[1161] MS (M+H) $^+$: 475

Example 277

cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1162]



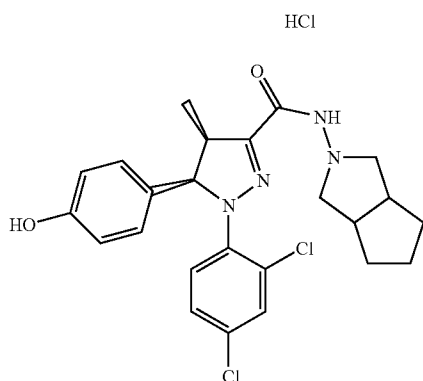
[1163] ^1H NMR (300 MHz, CHLOROFORM- d) δ ppm 0.94 (d, $J=7.32$ Hz, 3H) 1.78 (m, 6H) 3.03 (br. S., 2H) 3.74 (s, 3H) 3.66-3.88 (m, 3H) 3.99 (br. S., 2H) 5.86 (d, $J=11.86$ Hz, 1H) 6.75 (d, $J=8.50$ Hz, 2H) 6.96 (d, $J=8.50$ Hz, 2H) 7.12 (dd, $J=8.64$, 2.20 Hz, 1H) 7.25 (d, $J=2.20$ Hz, 1H) 7.33 (d, $J=8.64$ Hz, 1H) 9.58 (br. S., 1H)

[1164] MS (M+H) $^+$: 487

Example 343

cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

[1165] Example compound 277 (0.82 mmol) was dissolved in 10 mL dichloromethane. A solution of 1 M BBr₃ (5 eq.) in dichloromethane was added at 0° C. and the reaction was stirred overnight at ambient temperature. The solid formed was filtered off and the solvent was evaporated. A solution of 2 N HCl/diethyl ether was added to form the hydrochloride.



[1166] ¹H NMR (300 MHz, METHANOL-d₄) δ ppm 0.95 (d, J=7.18 Hz, 3H) 1.65 (br. S., 2H) 1.79 (br. S., 4H) 2.95 (br. S., 2H) 3.11 (dd, J=16.48, 10.03 Hz, 2H) 3.81 (dd, J=11.43, 7.18 Hz, 1H) 4.03 (m, 2H) 5.90 (d, J=11.43 Hz, 1H) 6.64 (d, J=8.06 Hz, 2H) 6.95 (d, J=8.06 Hz, 2H) 7.20 (m, 1H) 7.39 (d, J=2.20 Hz, 1H) 7.42 (d, J=8.79 Hz, 1H)

[1167] MS (M+H)⁺: 473

Example 92

(+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydrochloride

[1168] ¹H NMR (400 MHz, METHANOL-d₄) δ ppm 0.94 (d, J=7.42 Hz, 3H) 1.68 (br, 2H) 1.98 (dt, J=11.28, 5.59 Hz, 4H) 3.53 (br, 4H) 3.90 (td, J=11.53, 7.42 Hz, 1H) 5.99 (d, J=11.53 Hz, 1H) 7.16 (d, J=8.40 Hz, 2H) 7.20-7.29 (m, 3H) 7.36-7.48 (m, 2H)

[1169] [α]₅₈₉^{RT}=+131.73

Example 93

(-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydrochloride

[1170] ¹H NMR (400 MHz, METHANOL-d₄) δ ppm 0.94 (d, J=7.42 Hz, 3H) 1.68 (br, 2H) 1.98 (dt, J=11.28, 5.59 Hz, 4H) 3.53 (br, 4H) 3.90 (td, J=11.53, 7.42 Hz, 1H) 5.99 (d,

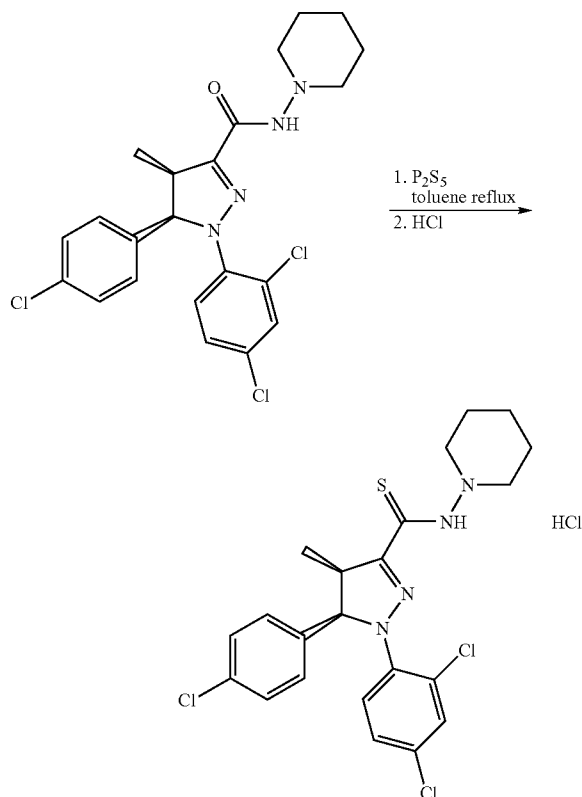
J=11.53 Hz, 1H) 7.16 (d, J=8.40 Hz, 2H) 7.20-7.29 (m, 3H) 7.36-7.48 (m, 2H)

[1171] [α]₅₈₉^{RT}=-126.71

Example 379

cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide hydrochloride

[1172]



[1173] Phosphorous pentasulfide was added in portions (5×0.570 g, 12.9 mmol) to a solution of example compound 1 (6.46 mmol) in dry toluene (30 ml). The mixture was stirred and heated to reflux for 15 hours. The solid was filtered off and washed with dichloromethane. The solvent was evaporated and a bright yellow solid was isolated, which was then treated with aqueous ammonium solution and extracted with ethyl acetate, dried over Na₂SO₄ and filtered off. The solid obtained after evaporation of the solvent was dissolved in acetone and a solution of 2 N HCl in diethyl ether to form the corresponding hydrochloride. The pale yellow solid obtained by filtration was identified as cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide hydrochloride (85% yield).

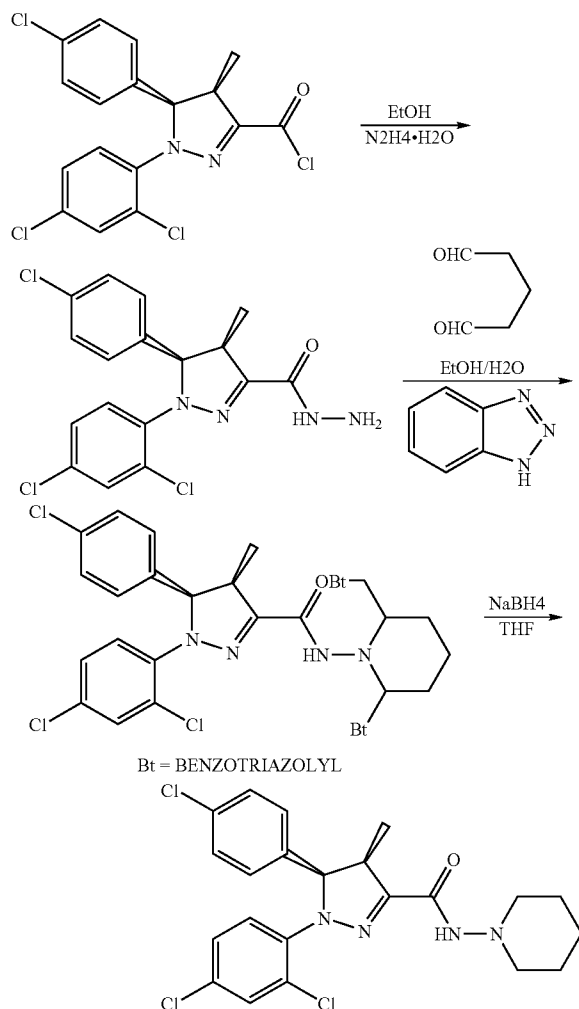
[1174] ¹H NMR (300 MHz, METHANOL-d₄) δ ppm 0.95 (d, J=7.32 Hz, 3H) 1.62-1.78 (m, 2H) 2.00 (m, 4H) 3.60 (m, 4H) 3.99 (dd, J=10.84, 7.32 Hz, 1H) 5.91 (d, J=10.84 Hz, 1H) 7.22 (d, J=8.79 Hz, 1H) 7.18-7.25 (m, 2H) 7.25-7.31 (m, 2H) 7.40 (d, J=8.79 Hz, 1H) 7.45 (d, J=2.20 Hz, 1H)

[1175] MS (M+H)⁺: 481

Example 1

cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydrochloride

[1176]



Step 1: Preparation of cis-5-(4-Chloro-phenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid hydrazide

[1177] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid chloride (5.40 mmol) was refluxed for 2 hours in ethanol (25 mL). The reaction mixture was cooled to room temperature and 5 g of the hydrazine hydrate were added. The reaction mixture was heated to reflux for 4 hours, cooled to room temperature and the solvent was removed in vacuum. The resulting residue was taken up in dichloromethane (30 mL) and washed with water, dried and concentrated in vacuum. Chromatography with silica gel, eluting with Chloroform/Methanol system of appropriate polarity, yielded the title compound (65% yield) as a white solid.

Step 2: cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid(2,6-benzotriazolyl-piperidin-1-yl)amide

[1178] Benzotriazole (119 mg, 1 mmol), cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid hydrazide (0.5 mmol), water (5 mL) and ethanol (5 mL) were stirred for 10 min at room temperature. Glutaraldehyde (200 mg, 0.5 mmol, 25% aqueous solution) was slowly added to the reaction mixture, and stirring was continued overnight at room temperature. The solvent was removed and the insoluble products were filtered off, washed with water, and dried under vacuum, yielding the title compound (66% yield) as a white solid.

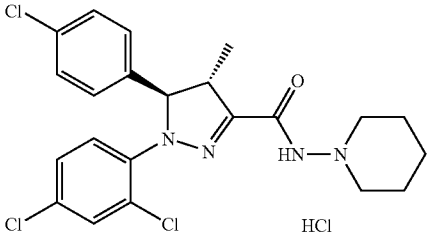
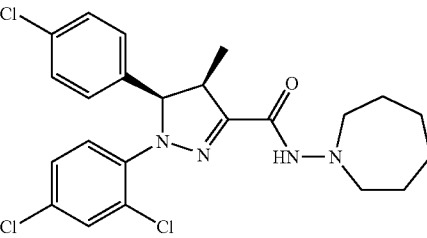
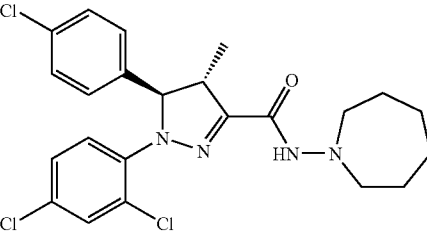
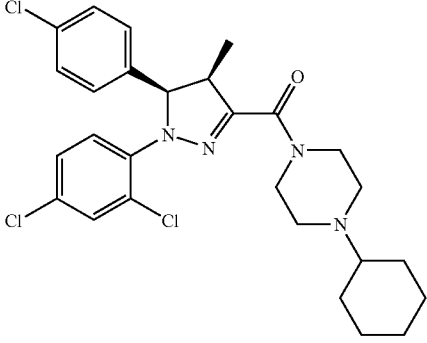
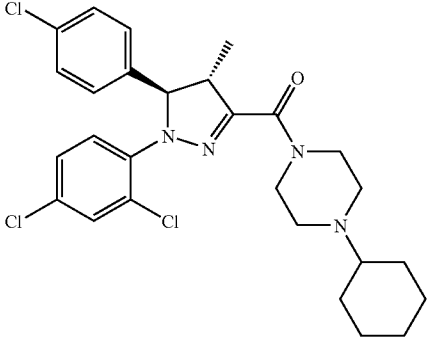
Step 3: cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide

[1179] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid(2,6-benzotriazolyl-piperidin-1-yl)amide (0.33mmol) in tetrahydrofuran (10 mL) and sodium borohydride (38 mg, 1 mmol) were stirred at room temperature overnight. The reaction was quenched with water, and the product was extracted with dichloromethane, washed with water and dried. Solvent evaporation under reduced pressure led to the title compound. The product was purified by recrystallization from ethanol, yielding the title compound (41% yield) as a white solid.

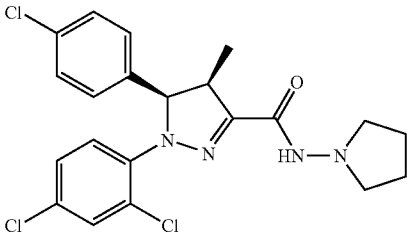
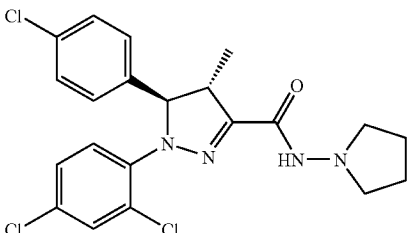
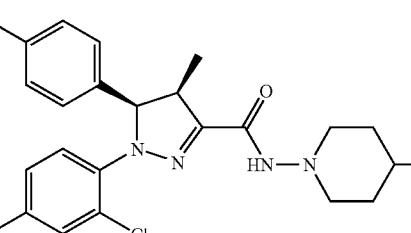
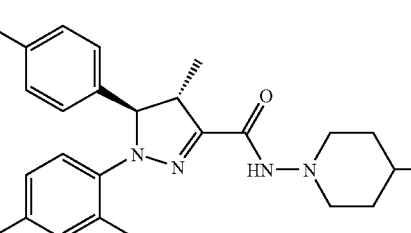
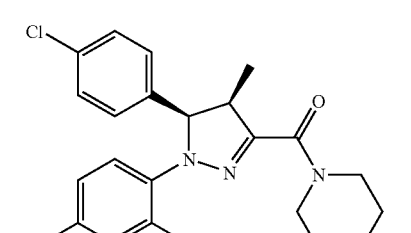
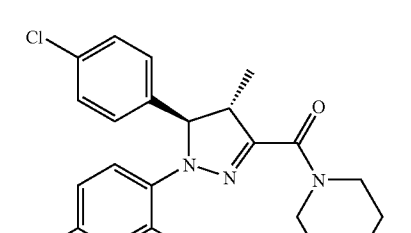
[1180] The following examples were prepared using the methods described above.

No	STRUCTURE	Name	¹ H-NMR	MS (M + H) ⁺
1		cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydrochloride	¹ H NMR (400 MHz, METHANOL-d ₄) δ ppm 0.94(d, J=7.42Hz, 3H) 1.68(br, 2H) 1.98(dt, J=11.28, 5.59Hz, 4H) 3.53(br, 4H) 3.90(td, J=11.53, 7.42Hz, 1H) 5.99(d, J=11.53Hz, 1H) 7.16(d, J=8.40Hz, 2H) 7.20-7.29(m, 3H) 7.36-7.48(m, 2H)	466

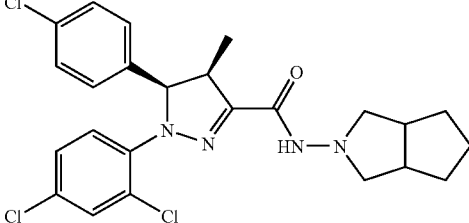
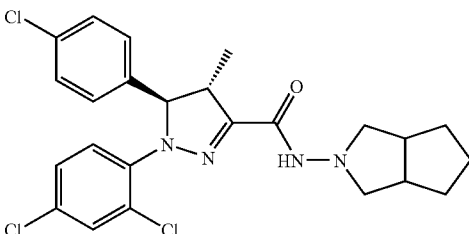
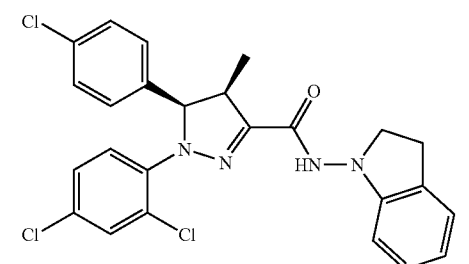
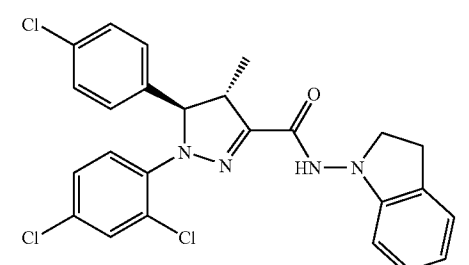
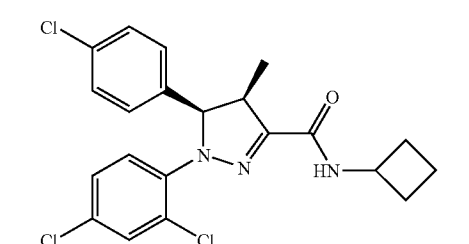
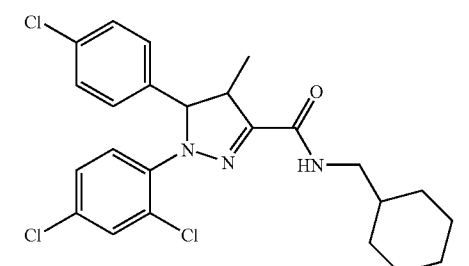
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| 2 |  | <p>trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydrochloride</p> | <p>¹H NMR (400 MHz, DMSO-d₆) δ ppm 1.38(d, J=7.03Hz, 3H) 1.42(m, 2H) 1.71(m, 4H) 3.12(m, 4H) 3.42(dt, J=13.38, 5.86Hz, 1H) 5.36(d, J=5.86Hz, 1H) 7.19(d, J=8.21Hz, 2H) 7.31(d, J=8.60Hz, 3H) 7.49(d, J=2.34Hz, 1H) 7.53(d, J=8.60Hz, 1H) 10.49(s, 1H)</p> | 466 |
| 3 |  | <p>cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide</p> | | |
| 4 |  | <p>trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide</p> | | |
| 5 |  | <p>cis-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-(4-cyclohexyl-piperazin-1-yl)-methanone</p> | | 533 |
| 6 |  | <p>trans-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-(4-cyclohexyl-piperazin-1-yl)-methanone</p> | | 533 |

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| 7 |  | cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid pyrrolidin-1-ylamide | 451 |
| 8 |  | trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid pyrrolidin-1-ylamide | 451 |
| 9 |  | cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (4-methyl-piperidin-1-yl)-amide | 479 |
| 10 |  | trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (4-methyl-piperidin-1-yl)-amide | 479 |
| 11 |  | cis-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone | 450 |
| 12 |  | trans-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone | 450 |

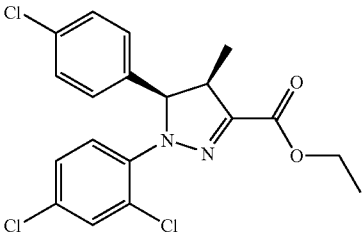
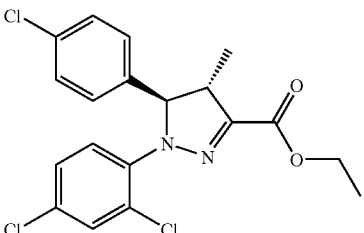
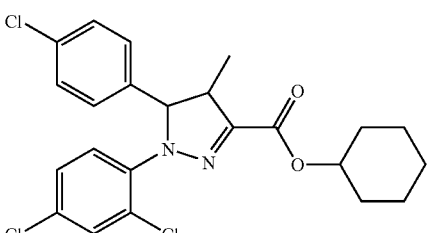
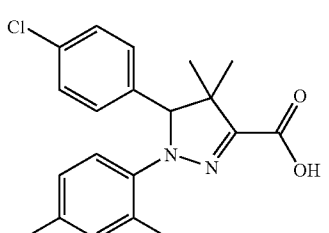
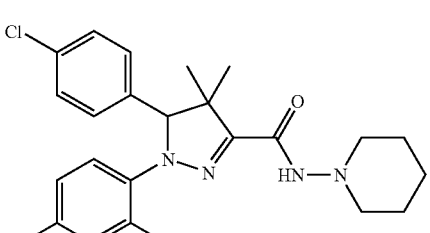
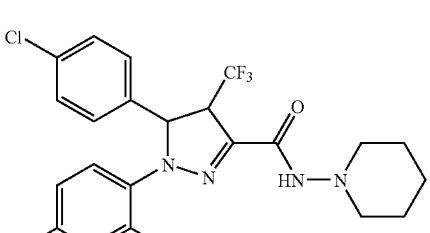
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| 13 |  | cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta[c]pyrrol-2-yl)-amide | 491 |
| 14 |  | trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta-[c]pyrrol-2-yl)-amide | 491 |
| 15 |  | cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (2,3-dihydro-indol-1-yl)-amide | 499 |
| 16 |  | trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (2,3-dihydro-indol-1-yl)-amide | 499 |
| 17 |  | cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclobutylamide | 436 |
| 18 |  | 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclohexyl methyl-amide | 478 |

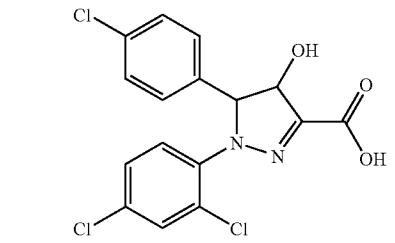
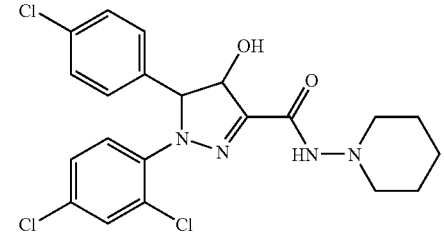
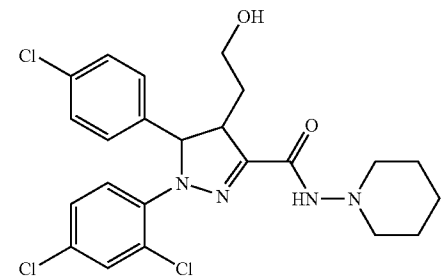
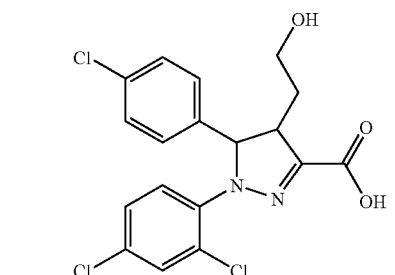
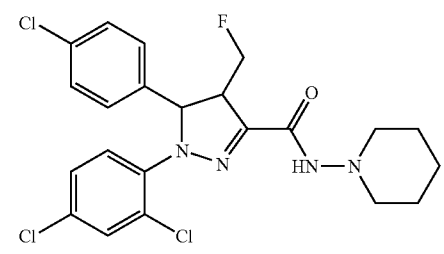
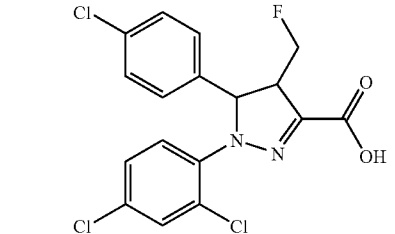
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19		cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	¹ H NMR (400 MHz, CHLOROFORM-d) δ ppm 0.96(d, J=7.42Hz, 3H) 3.82(td, J=11.72, 7.42Hz, 1H) 5.91(d, J=11.72Hz, 1H) 7.04(d, J=8.60Hz, 2H) 7.11(dd, J=8.60, 2.34Hz, 1H) 7.21–7.30(m, 4H)	384
20		trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	¹ H NMR (400 MHz, CHLOROFORM-d) δ ppm 1.52(d, J=7.03Hz, 3H) 3.52(m, 1H) 5.39(d, J=5.47Hz, 1H) 7.08(ddd, J=13.92, 5.62, 5.28Hz, 3H) 7.14–7.34(m, 4H)	384
21		cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid		398
22		trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide		398
23		cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester	¹ H NMR (400 MHz, CHLOROFORM-d) δ ppm 0.94(d, J=7.32Hz, 3H) 3.80(td, J=11.48, 7.32Hz, 1H), 3.88(s, 3H) 5.82(d, J=11.48Hz, 1H) 7.04(m, 2H) 7.10(dd, J=8.67, 2.32Hz, 1H) 7.20–7.24(m, 3H) 7.27(m, 1H)	398
24		trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester	¹ H NMR (400 MHz, CHLOROFORM-d) δ ppm 1.49(d, J=7.32Hz, 3H) 3.50(td, J=7.32Hz, 5.60 1H) 3.90(s, 3H) 5.35(d, J=5.60Hz, 1H) 7.04(m, 2H) 7.10(m, 1H) 7.20–7.27(m, 4H)	398

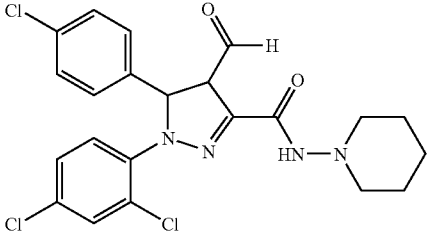
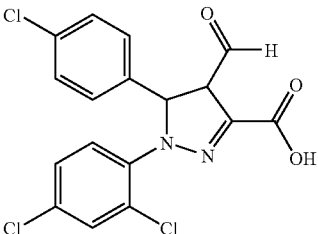
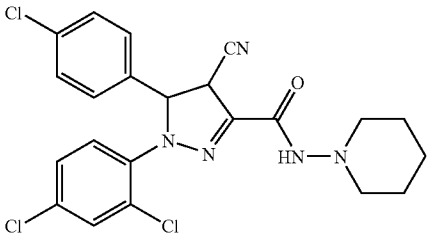
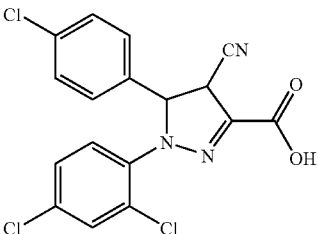
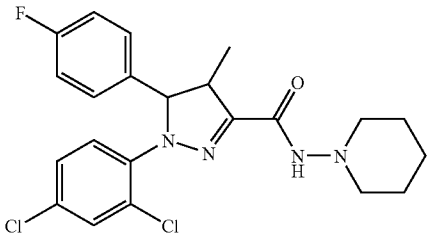
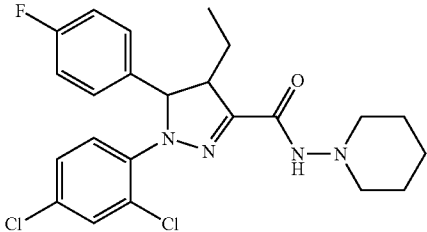
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25		cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid ethyl ester	411
26		trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid ethyl ester	411
27		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclohexyl ester	465
28		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	397
29		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	479
30		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	519

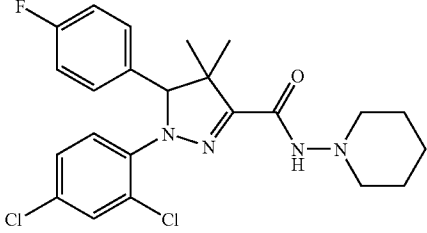
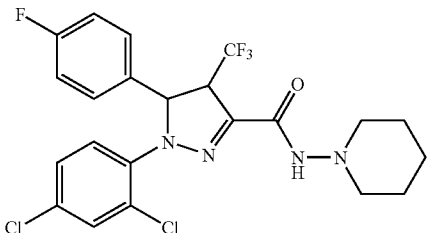
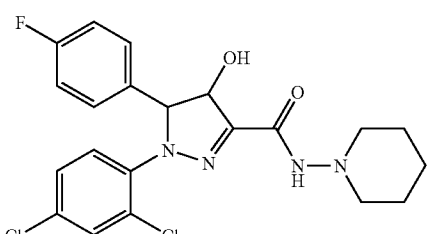
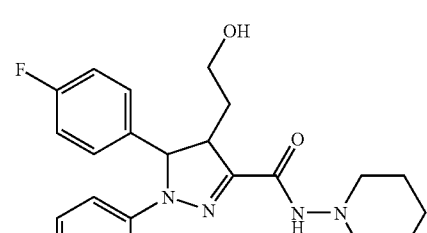
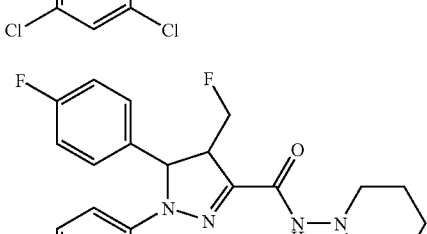
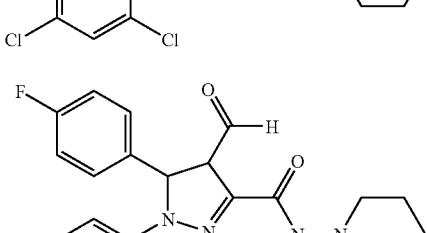
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31		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid	385
32		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	467
33		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	495
34		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid	413
35		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-fluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	483
36		5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-fluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid	401

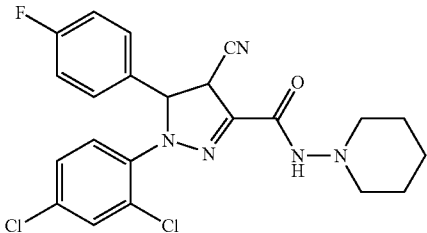
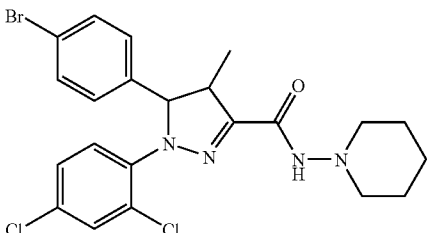
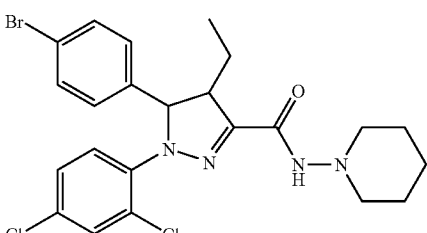
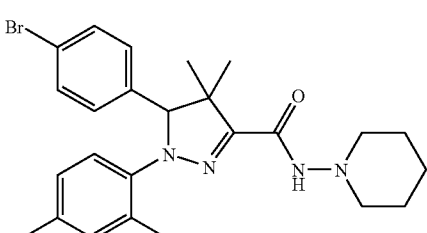
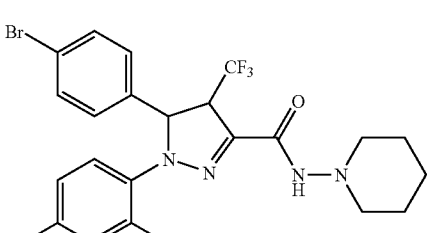
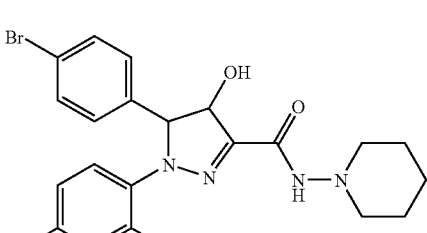
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- 37  5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 479
- 38  5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid 397
- 39  5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide 476
- 40  5-(4-Chloro-phenyl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid 394
- 41  1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 449
- 42  1-(2,4-Dichloro-phenyl)-4-ethyl-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 463

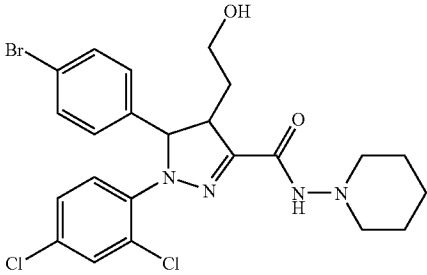
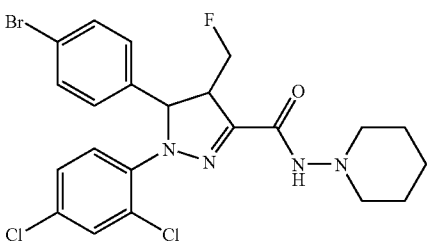
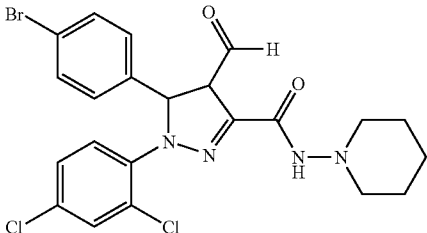
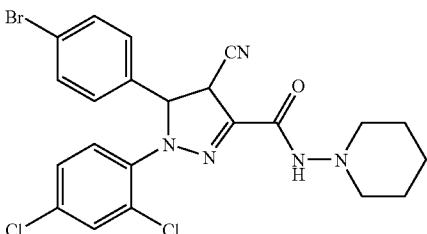
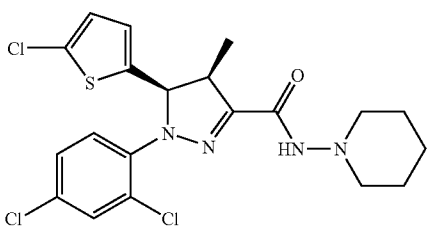
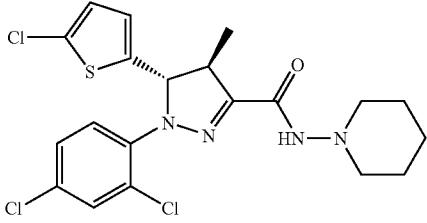
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43		1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	463
44		1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	503
45		1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	451
46		1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	479
47		1-(2,4-Dichloro-phenyl)-4-fluoromethyl-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	467
48		1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	463

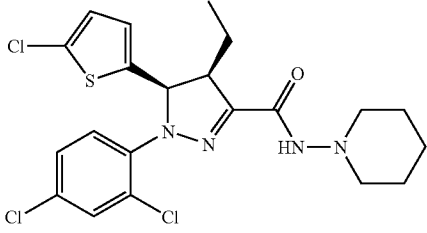
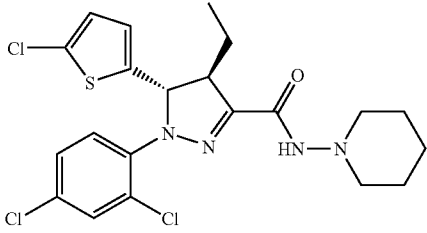
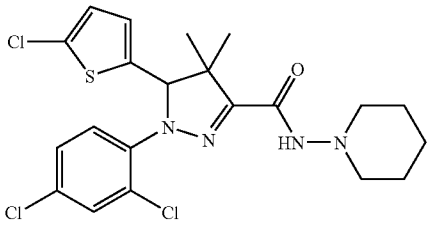
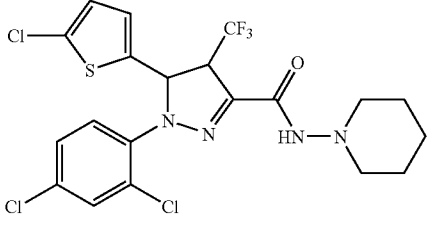
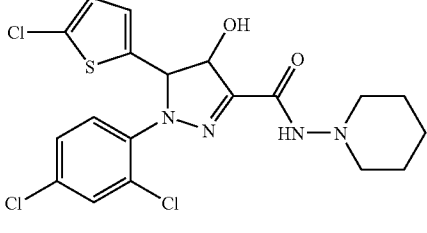
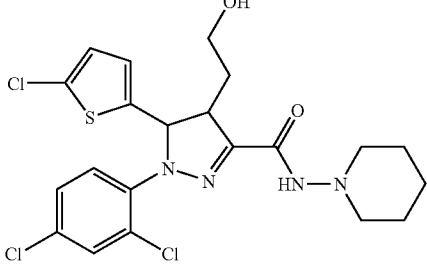
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49		4-Cyano-1-(2,4-dichloro-phenyl)-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	460
50		5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	509
51		5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	523
52		5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	523
53		5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	563
54		5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	511

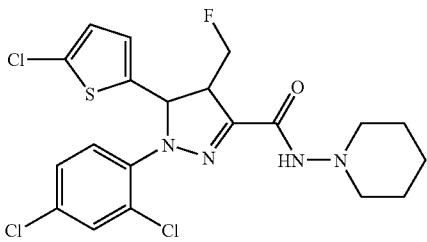
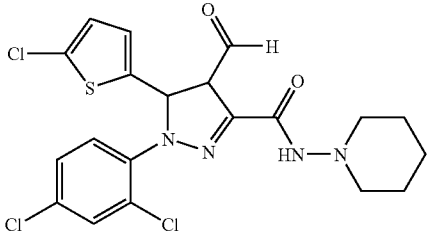
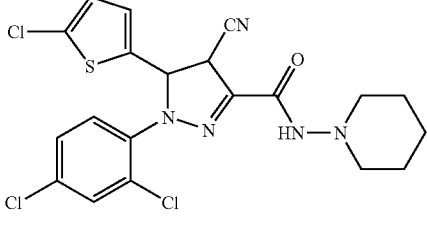
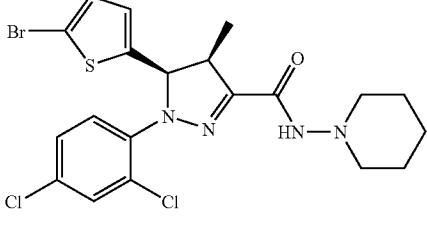
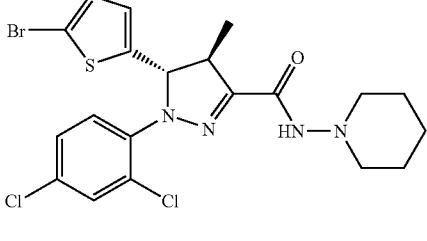
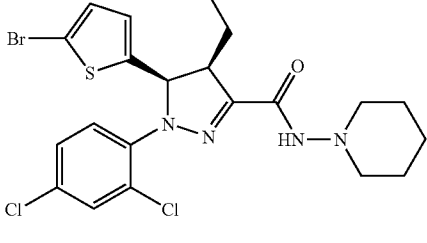
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- 55  5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 539
- 56  5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-fluoroethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 527
- 57  5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 523
- 58  5-(4-Bromo-phenyl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 520
- 59  cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 471
- 60  trans-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 471

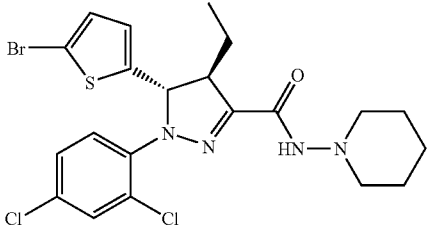
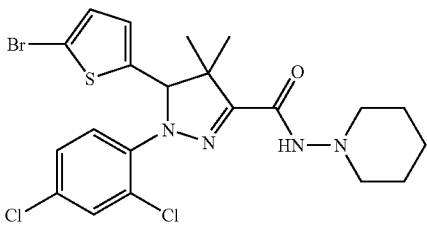
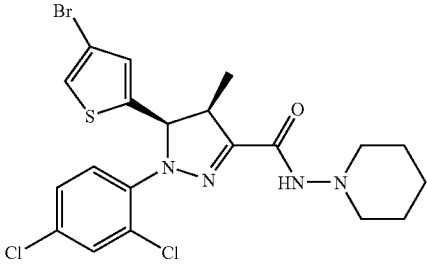
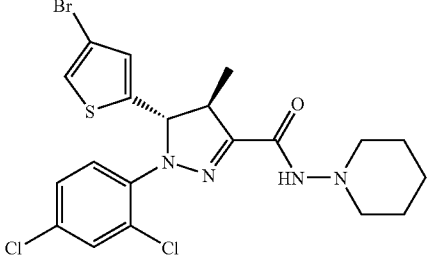
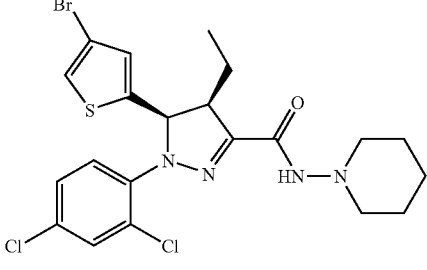
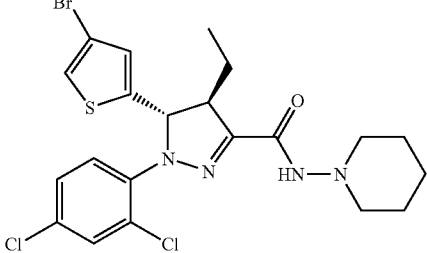
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61		cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	485
62		trans-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	485
63		5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	485
64		5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	525
65		5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	473
66		5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxyethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	501

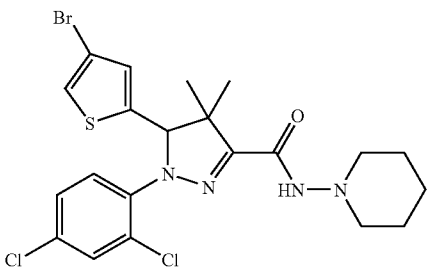
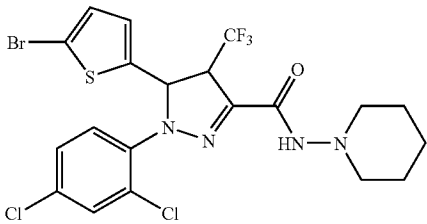
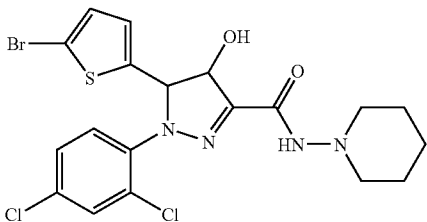
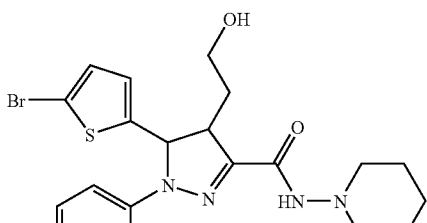
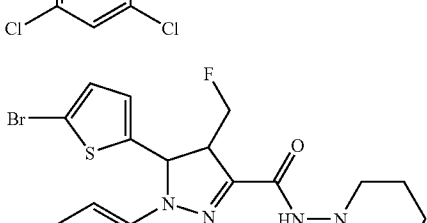
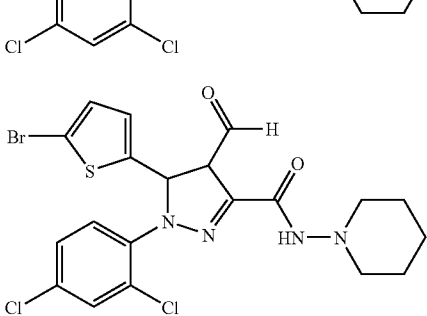
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67		5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	489
68		5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	485
69		5-(5-Chloro-thiophen-2-yl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	482
70		cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	515
71		trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	515
72		cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	529

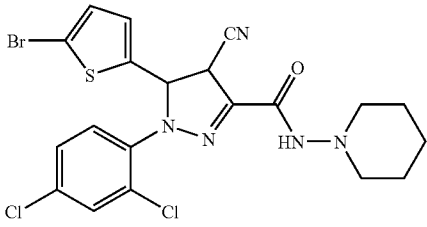
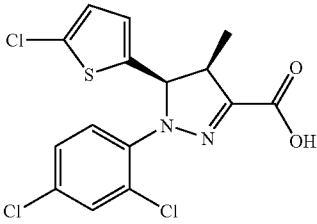
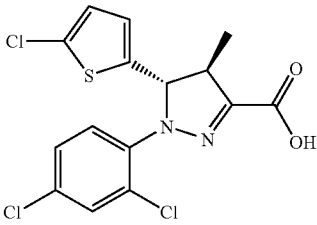
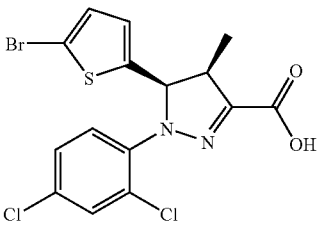
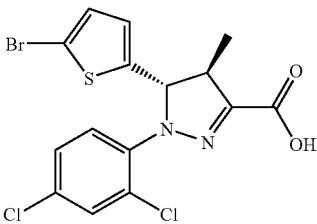
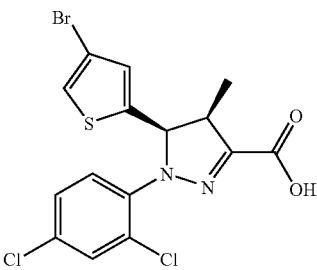
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73		trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	529
74		5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	529
75		cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	515
76		trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	515
77		cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	529
78		trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	529

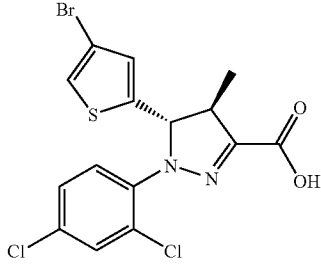
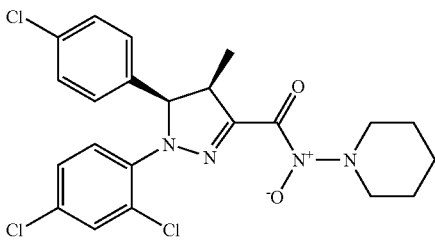
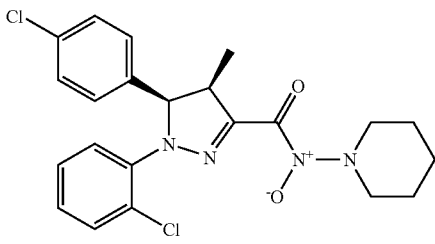
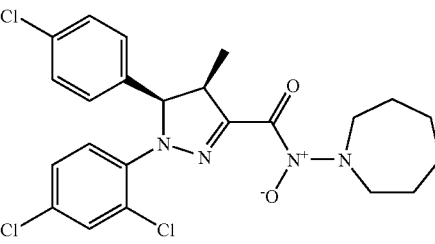
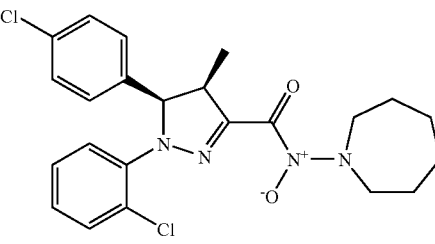
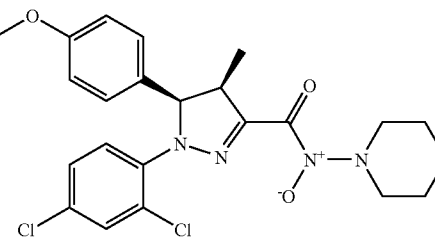
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- 79  5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 529
- 80  5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 569
- 81  5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 517
- 82  5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 545
- 83  5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(fluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 533
- 84  5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide 529

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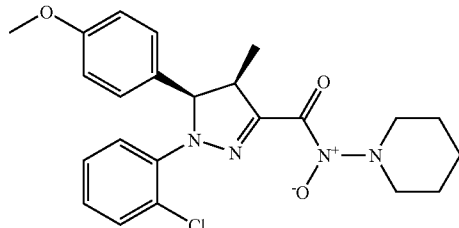
85		5-(5-Bromo-thiophen-2-yl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide	526
86		cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	389
87		trans-[5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone	389
88		cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	433
89		trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	433
90		cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	433

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91		trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid	433
446		cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide	480
447		cis-5-(4-chlorophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide	446
448		cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide	494
449		cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide	460
450		cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide	476

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451



cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide

442

- 92 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
 93 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
 94 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 95 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 96 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
 97 trans-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
 98 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 99 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 100 cis-5-(4-chlorophenyl)-N-(4-cyclopentylpiperazin-1-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
 101 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-morpholino-4,5-dihydro-1H-pyrazole-3-carboxamide
 102 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(4-methylpiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 103 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(2,6-dimethylpiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 104 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (1,3-dioxo-1H,3H-benzof[de]isoquinolin-2-yl)-amide
 105 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (1H,3H-benzof[de]isoquinolin-2-yl)-amide
 106 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(2-(methoxymethyl)pyrrolidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
 107 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((S)-2-(methoxymethyl)pyrrolidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
 108 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydrocyclopenta[c]pyrrol-2-yl)-amide hydrochloride
 109 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 110 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 111 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 112 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 113 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(2-methylindolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 114 cis-5-(4-chlorophenyl)-N-(cyclohexylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 115 cis-5-(4-chlorophenyl)-N-(cycloheptylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 116 cis-5-(4-chlorophenyl)-N-cyclododecyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 117 cis-1-(2-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 118 cis-N-(4-tert-butylcyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 119 cis-5-(4-chlorophenyl)-N-cyclooctyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 120 cis-N-(azocan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 121 cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 122 cis-azocan-1-yl(cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl)methanone
 123 cis-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 124 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 125 trans-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 126 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 127 cis-5-(4-chlorophenyl)-N-(cyclohexylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 128 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1R,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 129 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 130 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1R,2R)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 131 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1R,2R)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 132 (+)-cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 133 (-)-cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 134 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(4-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 135 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(4-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 136 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(3-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 137 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(3-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 138 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(2-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 139 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(2-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 140 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 141 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 142 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 143 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
 144 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 145 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 146 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 147 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
 148 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
 149 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
 150 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-py-razole-3-carboxylic acid cyclohexyl ester

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371	cis-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
372	trans-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
373	cis-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
374	trans-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
375	cis-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
376	trans-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
377	cis-1-(2-chlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
378	trans-1-(2-chlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
379	cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide hydrochloride
380	trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
381	cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
382	trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
383	cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
384	cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
385	cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
386	trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
387	cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
388	trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
389	cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
390	trans-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
391	cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
392	trans-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
393	cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
394	cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
395	trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
396	cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
397	cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
398	trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
399	cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
400	trans-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
401	cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
402	trans-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
403	cis-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
404	trans-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
405	cis-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
406	trans-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
407	7-(4-Chloro-phenyl)-6-(2,4-dichlorophenyl)-5,6-diaza-spiro[2,4]hept-4-ene-4-carboxylic acid piperidin-1-ylamide
408	6-(2,4-Dichloro-phenyl)-7-(4-methoxy-phenyl)-5,6-diaza-spiro[2,4]hept-4-ene-4-carboxylic acid piperidin-1-ylamide
409	(+)-cis-N-((1S,2S)-2-(benzylloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
[410]	cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
[411]	cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
[412]	(4R,5S)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
[413]	cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
[414]	cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
415	cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
416	trans-ethyl 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylate
417	cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
418	cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
419	(-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
420	(+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
421	trans-ethyl 1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate
422	cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-((1R,2S,4R)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
423	cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(3-methylcyclohexyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
424	cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(2-methylcyclohexyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
426	trans-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
427	cis-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
428	cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
[429]	1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
[430]	cis-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
[431]	trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
432	cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
434	cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
436	(+)-cis-N-((1S,2S)-2-(benzylloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
437	(-)-cis-N-((1R,2R)-2-(benzylloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
438	cis-N-(azocan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
439	cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
440	cis-N-(azocan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
441	cis-N-(azocan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
442	cis-N-(azocan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
443	cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
444	(+)-cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
445	(-)-cis-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride

Pharmacological Data

[1181] The binding of the the pyrazoline compounds of general formula I to CB1-receptors was determined according to the method described in the section Pharmacological Methods, Part I.

[1182] The pyrazoline compounds of the present invention show a high affinity to the CB1-receptor (table 1.)

TABLE 1

Compound according to example	IC ₅₀ [nM]	Inhibition [%; 10 ⁻⁷ M]	Inhibition [10 ⁻⁸ , M]
5	199.5		
7		41	20.7
9	77.3		
13	25.1	70.6	27.6
15	100		
19		-3.6	-0.7
21		23	11
71	>1000		
75	180		
96	7.9	80	65
100		32.6	5.4
101		34.9	27.7
103	60.6	55.3	19.5
104		31.7	-0.4
105		31.4	35.9
106		39	20.4
107		43.9	2.7
108	31.6		
113	128.1	55.5	24.7
114		28.3	-13
119	51.4	73.7	19.5
120		75.5	37
123	31.9	90.8	39.9
128		35.3	18.0
129	69	72.3	11.6
200		-11.2	3
207	71	73	48.3
211	30	69.8	37.2
213	53		
221		-6.3	-2.2
227	122	65.3	15.3
231	112	50.5	23.2
233		43.9	27.9
235		25.9	5.4
261		-6.9	-5
265	60	62	29.2
271	61	73.5	30.6
275	66	69.1	26.1
277	20	61.6	17.9
279	19	62.4	14.7
281		39.0	10.2
282		44.3	9.6
343		-10.1	-15.8
344		-23.3	-27.3
363		11.3	12.2
367		11	7.2
375	140		
376	70.8		
379	111.7	74.5	27.0
409		-5.8	-37
410	82	58.1	42.4
412		-15.4	-11.1
413		17.3	13.8
414		36.2	28.7
415		79.3	32.3
416	182	93.5	41
417		38.5	14.8
418	36	62.6	19.9
419	54.3	57.1	27.8
420		30.4	2.8
421		31.2	38
422		-2	-8.4
423	45.5	66.7	33.1

TABLE 1-continued

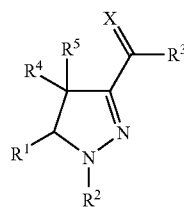
Compound according to example	IC ₅₀ [nM]	Inhibition [%; 10 ⁻⁷ M]	Inhibition [10 ⁻⁸ , M]
424	29.7	65.7	39.3
425		66.8	30.7
426	280		
427	160		
428		42.6	28.4
429		-11	-10.1
430	>1000		
431	79		
432	89		
433	>1000		
434	89		
435	199.5		
437		40.9	14.7

[1183] The antagonism of the pyrazoline compounds of general formula I to the CB1-receptor was determined according to the method described in Pharmacological methods, part V (table 2).

TABLE 2

Compound according to example	Antagonism [%]
19	-18
70	81
93	97
376	75
375	58
430	23
431	72
432	89
433	57
435	40

1. A 4-substituted pyrazoline compound of general formula I,



wherein

X is O or S;

R¹ and R², independently of one another, in each case represent an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

or a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring sys-

- tem and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;
- R³ an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;
- a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;
- a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical forms a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing spirocyclic residue via a common ring atom;
- a —O—R⁶ moiety; a —NR⁷R⁸ moiety or a —NR⁹—O—R¹⁰ moiety;
- R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;
- a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;
- a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;
- an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an optionally at least mono-substituted alkylene group, alkenylene group or alkynylene group;
- a —O—R¹¹ moiety; a —S—R¹² moiety; a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;
- R⁵ represents H; F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;
- a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;
- a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;
- least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;
- an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;
- a —O—R¹¹ moiety; a —S—R¹² moiety; a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;
- or R⁴ and R⁵ together with the bridging carbon atom form a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical;
- R⁶ represents a hydrogen atom;
- a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;
- a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;
- an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;
- a —P(=O)(OR¹⁶)₂ moiety; a —C(=O)—OR¹⁷ moiety; a —C(=O)—NH—R¹⁸ moiety or a —C(=O)—R¹⁹ moiety;
- R⁷ and R⁸, independently of one another, in each case represent a hydrogen atom;
- a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;
- a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;
- a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical which together with a saturated or unsaturated,

unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical forms a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing spirocyclic residue via a common ring atom;

an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

a $-\text{P}(=\text{O})(\text{OR}^{16})_2$ moiety; a $-\text{C}(=\text{O})-\text{OR}^{17}$ moiety; a $-\text{C}(=\text{O})-\text{NH}-\text{R}^{18}$ moiety; a $-\text{C}(=\text{O})-\text{R}^{19}$ moiety; a $-\text{S}(=\text{O})_2-\text{R}^{20}$ moiety; or a $-\text{NR}^{22}$ moiety;

R^9 represents hydrogen or a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{20} , independently of one another, in each case represent a saturated or unsaturated, unsubstituted or at least

mono-substituted aliphatic radical;

a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted alkylene group;

or an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

R^{16} , R^{17} , R^{18} and R^{19} , independently of one another, in each case represent a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical,

or an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

and

R^{21} and R^{22} , independently of one another, in each case represent a hydrogen atom;

a saturated or unsaturated, unsubstituted or at least mono-substituted aliphatic radical;

a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical, which may be condensed with an unsubstituted or at

least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical which together with a saturated or unsaturated, unsubstituted or at least monosubstituted, optionally at least one heteroatom as a ring member containing cycloaliphatic radical forms a saturated or unsaturated, unsubstituted or at least mono-substituted, optionally at least one heteroatom as a ring member containing spirocyclic residue via a common ring atom;

or an unsubstituted or at least mono-substituted aryl or heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted alkylene group, alkenylene group or alkynylene group;

whereby the following compounds are excluded

[A] ethyl 4,5-dimorpholino-1-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[B] methyl 1-phenyl-4,5-di(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxylate,

[C] 1-(4-chlorophenyl)-4-(hydroxymethyl)-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid,

[D] ethyl 5-morpholino-1,4-diphenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[E] ethyl 4-(4-chlorophenyl)-1-(4-fluorophenyl)-5-morpholino-4,5-dihydro-1H-pyrazole-3-carboxylate,

[F] ethyl 1-(4-fluorophenyl)-5-morpholino-4-p-tolyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[G] methyl 4-(hydroxymethyl)-1-(2-(methoxycarbonyl)phenyl)-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[H] benzofuran-2-yl(5-(4-hydroxyphenyl)-4-nitro-1-(3-phenyl-1H-pyrazol-5-yl)-4,5-dihydro-1H-pyrazol-3-yl)methanone,

[I] (5-(benzo[d][1,3]dioxol-5-yl)-4-nitro-1-(3-phenyl-1H-pyrazol-5-yl)-4,5-dihydro-1H-pyrazol-3-yl)(benzofuran-2-yl)methanone,

[J] 3-(benzofuran-2-carbonyl)-5-phenyl-1-(3-phenyl-1H-pyrazol-5-yl)-1H-pyrazole-4,4(5H)-dicarbonitrile,

[K] (5-(benzo[d][1,3]dioxol-4-yl)-4-nitro-1-(3-phenyl-1H-pyrazol-5-yl)-4,5-dihydro-1H-pyrazol-3-yl)(benzofuran-2-yl)methanone,

[L] ethyl 1-(3-methoxyphenyl)-5-morpholino-4-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

[M] ethyl 1-(3-methoxyphenyl)-4-phenyl-5-(piperazin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxylate, which is optionally bonded to copolystyrol,

[N] 1-(3-methoxyphenyl)-4-phenyl-5-(piperazin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid, which is optionally bonded to copolystyrol and

[O] ethyl 5-(4-oxo-2,3-diphenyl-4,5-dihydro-2H-pyrazolo[4,3-d]pyridazin-7-yl)-1,4-diphenyl-4,5-dihydro-1H-pyrazole-3-carboxylate,

optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

2. A compound according to claim 1, characterized in that X is O or S;

R¹ and R², independently of one another, in each case represent an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical or C₄₋₁₆ cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group;

or an unsubstituted or at least mono-substituted C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group;

R³ represents an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical or C₄₋₁₆ cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group;

an unsubstituted or at least mono-substituted C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical, C₄₋₁₆ cycloalkenyl radical, C₄₋₁₆

heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical which together with an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical, C₄₋₁₆ cycloalkenyl radical, C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical forms an unsubstituted or at least mono-substituted spirocyclic residue via a common ring atom;

a —O—R⁶ moiety; a —NR⁷R⁸ moiety or a —NR⁹—O—R¹⁰ moiety;

R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

an unsubstituted or at least mono-substituted C₁₋₁₆ alkyl radical, C₂₋₁₆ alkenyl radical or C₂₋₁₆ alkynyl radical;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical or C₄₋₁₆ cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group;

an unsubstituted or at least mono-substituted C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group;

an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

a —O—R¹¹ moiety; a —S—R¹² moiety; a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;

R⁵ represents H; F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

an unsubstituted or at least mono-substituted C₁₋₁₆ alkyl radical, C₂₋₁₆ alkenyl radical or C₂₋₁₆ alkynyl radical;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical or C₄₋₁₆ cycloalkenyl radical,

- which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group;
- an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group;
- an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- O—R¹¹ moiety; a —S—R¹² moiety; a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;
- or R⁴ and R⁵ together with the bridging carbon atom form an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical;
- R⁶ represents a hydrogen atom;
- an unsubstituted or at least mono-substituted C_{1-16} alkyl radical, C_{2-16} alkenyl radical or C_{2-16} alkynyl radical;
- an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- a —P(=O)(OR¹⁶)₂ moiety; a —C(=O)—OR¹⁷ moiety; a —C(=O)—NH—R¹⁸ moiety or a —C(=O)—R¹⁹ moiety;
- R⁷ and R⁸, independently of one another, in each case represent a hydrogen atom;
- an unsubstituted or at least mono-substituted C_{1-16} alkyl radical, C_{2-16} alkenyl radical or C_{2-16} alkynyl radical;
- an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical or C_{4-16} cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- an unsubstituted or at least mono-substituted C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C_{1-5} alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical, C_{4-16} cycloalkenyl radical, C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical which together with an unsubstituted or at least mono-substituted C_{3-16} cycloalkyl radical, C_{4-16} cycloalkenyl radical, C_{4-16} heterocycloalkyl radical or C_{5-16} heterocycloalkenyl radical forms an unsubstituted or at least mono-substituted spirocyclic residue via a common ring atom;
- an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C_{1-5} alkylene group, C_{2-5} alkenylene group or C_{2-5} alkynylene group;
- an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be con-

densed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

a —P(=O)(OR¹⁶)₂ moiety; a —C(=O)—OR¹⁷ moiety; a —C(=O)—NH—R¹⁸ moiety; a —C(=O)—R¹⁹ moiety; a —S(=O)₂—R²⁰ moiety; or a —NR²² moiety;

R⁹ represents a hydrogen atom or an unsubstituted or at least mono-substituted C₁₋₁₆ alkyl radical, C₂₋₁₆ alkenyl radical or C₂₋₁₆ alkynyl radical;

R¹⁰, R¹¹, R¹², R¹³, R¹⁴, R¹⁵ and R²⁰, independently of one another, in each case represent an unsubstituted or at least mono-substituted C₁₋₁₆ alkyl radical, C₂₋₁₆ alkenyl radical or C₂₋₁₆ alkynyl radical;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical or C₄₋₁₆ cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

an unsubstituted or at least mono-substituted C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bridged by at least one unsubstituted or at least mono-substituted C₁₋₅ alkylene group and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

R¹⁶, R¹⁷, R¹⁸ and R¹⁹, independently of one another, in each case represent an unsubstituted or at least mono-substituted C₁₋₁₆ alkyl radical, C₂₋₁₆ alkenyl radical or C₂₋₁₆ alkynyl radical;

or an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

and

R²¹ and R²², independently of one another, in each case represent a hydrogen atom;

an unsubstituted or at least mono-substituted C₁₋₁₆ alkyl radical, C₂₋₁₆ alkenyl radical or C₂₋₁₆ alkynyl radical;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical or C₄₋₁₆ cycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

an unsubstituted or at least mono-substituted C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical, which in each case may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical, C₄₋₁₆ cycloalkenyl radical, C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical which together with an unsubstituted or at least mono-substituted C₃₋₁₆ cycloalkyl radical, C₄₋₁₆ cycloalkenyl radical, C₄₋₁₆ heterocycloalkyl radical or C₅₋₁₆ heterocycloalkenyl radical forms an unsubstituted or at least mono-substituted spirocyclic residue via a common ring atom;

an unsubstituted or at least mono-substituted 6- or 10-membered aryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

or an unsubstituted or at least mono-substituted 5- to 14-membered heteroaryl radical, which may be condensed with an unsubstituted or at least mono-substituted mono- or polycyclic ring system and/or may be bonded via an unsubstituted or at least mono-substituted C₁₋₅ alkylene group, C₂₋₅ alkenylene group or C₂₋₅ alkynylene group;

whereby

the rings of the aforementioned ring system are in each case independently of one another 5- 6- or 7-membered and may in each case independently of one another optionally contain 1, 2 or 3 heteroatom(s) independently selected from the group consisting of nitrogen, oxygen and sulfur;

the aforementioned heteroaryl radicals in each case optionally contain 1, 2, 3 or 4 heteroatom(s) independently selected from the group consisting of nitrogen, oxygen and sulfur as ring member(s);

the aforementioned heterocycloalkyl radicals and heterocycloalkenyl radicals in each case optionally contain 1, 2, 3 or 4 heteroatom(s) independently selected from the group consisting of nitrogen, oxygen and sulfur as ring member(s);

optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

3. A compound according to claim 1, characterized in that R^1 and R^2 , independently of one another, in each case represent a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furanlyl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl, imidazo[2,1-b]thiazolyl, 2H-chromenyl, pyranlyl, indazolyl, quinazolinyl, [1,3]-benzodioxolyl, [1,4]-benzodioxanlyl, [1,2,3,4]-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, [1,2,3,4]-tetrahydroquinolinyl, [1,2,3,4]-tetrahydroisoquinolinyl, [1,2,3,4]-tetrahydroquinazolinyl and [3,4]-dihydro-2H-benzo[1,4]oxazinyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the aromatic or heteroaromatic part of the aforementioned radicals and may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-\text{CF}_3$, $-\text{CH}_2-\text{Cl}$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F, Cl, Br, I, $-\text{CN}$, $-\text{OCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(=\text{O})-\text{C}_2-\text{CH}_3$, $-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$, $-\text{N}(\text{C}_2\text{H}_5)_2$, phenoxy and thiophenyl, whereby the thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl;

or a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl,

morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrofuranlyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranlyl, tetrahydropyranlyl, (3,4)-dihydro-2H-pyranlyl, (3,4)-dihydro-2H-thiopyranlyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxalinyl, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl and norbornenyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the (hetero)cycloaliphatic part of the aforementioned radicals and

may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=\text{O}$), thioxo ($=\text{S}$), $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F, Cl, Br, I, $-\text{CN}$, $-\text{OCF}_3$, $-\text{SCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(=\text{O})_2-\text{CH}_3$, $-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$ and $-\text{N}(\text{C}_2\text{H}_5)_2$.

4. A compound according to claim 1, characterized in that

R^3 represents a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrofuranlyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranlyl, tetrahydropyranlyl, (3,4)-dihydro-2H-pyranlyl, (3,4)-dihydro-2H-thiopyranlyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl,

hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydrocarbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxaliny, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—Benzyl, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

a —O—R⁶ moiety; a —NR⁷R⁸ moiety or a —NR⁹—O—R¹⁰ moiety.

5. A compound according to claim 1, characterized in that R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl and 4-octyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—,

—(CH₂)—(CH₂)—(CH₂)— or —CH=CH-group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—CH₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranly, tetrahydrothiophenyl, azepanyl and diazepanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, and —N(C₂H₅)₂;

a —O—R¹¹ moiety; a —S—R¹² moiety, a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety.

6. A compound according to claim 1, characterized in that R⁴ and R⁵ together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, and cyclooctenyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃,

—O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂.

7. A compound according to claim 1, characterized in that R⁵ represents H; F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

a radical selected from the group consisting of methyl, —CF₃, —CH₂F, —CF₂H, —C₂F₅, ethyl, —CH₂—CN, —CH₂—OH, n-propyl, isopropyl, —CH₂—CH₂—CN, —CH₂—CH₂—OH, n-butyl, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranly, tetrahydrothiophenyl, azepanyl and diazepanyl,

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl (thiophenyl) and pyrrolyl, which may be bonded via a —(CH₂)— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, F, Cl and Br;

a —O—R¹¹ moiety; a —S—R¹² moiety, a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety.

8. A compound according to claim 1, characterized in that R⁶ represents a hydrogen atom; a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN, —NO, —NH—C(=O)—CH₃, —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃, —NH—C(=O)—O—CH₃, —NH—C(=O)—O—C₂H₅, —NH—C(=O)—O—C(CH₃)₃, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C(CH₃)₃, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —C(=O)—OH, —C(=O)—O—

CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —C(=O)—CH₃, —C(=O)—C₂H₅ and —C(=O)—C(CH₃)₃;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranly, tetrahydrothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH—group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH—group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—C(50 O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —CH₂—N(CH₃)₂, —(CH₂)—N(C₂H₅)₂, —CH₂—

$N(C_3H_7)_2$, $-CH_2-N(C_4H_9)_2$, $-CH_2-N(CH_3)(C_2H_5)$ and $-(CH_2)$ -morpholinyl;

a $-P(=O)(OR^{16})_2$ moiety; a $-C(=O)-OR^{17}$ moiety; a $-C(=O)-NH-R^{18}$ moiety or a $-C(=O)-R^{19}$ moiety.

9. A compound according to claim 1, characterized in that R^7 and R^8 , independently of another, in each case represent a hydrogen atom;

a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethynyl, propynyl, n-butynyl, n-pentynyl and n-hexynyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of $-OH$, F , Cl , Br , I , $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$ and $-NO_2$;

a radical selected from the group consisting of (1,2,3,4)-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrofuranlyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranlyl, tetrahydropyranlyl, (3,4)-dihydro-2H-pyranlyl, (3,4)-dihydro-2H-thiopyranlyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolizinylyl, (1,2,3,5,6,8a)-hexahydro-indolizinylyl, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxalinylyl, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-$

CH_2-CH_3 , $-O-C(CH_3)_3$, $-O-CH_2-O-CH_3$, $-O-CH_2-CH_2-O-CH_3$, $-O-CH_2-O-C_2H_5$, $-C(OCH_3)(C_2H_5)_2$, $-C(OCH_3)(CH_3)_2$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F , Cl , Br , I , $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-O-Benzyl$, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F , Cl , Br , I , $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

a $-P(=O)(OR^{16})_2$ moiety; a $-C(=O)-OR^{17}$ moiety; a $-C(=O)-NH-R^{18}$ moiety; a $-C(=O)-R^{19}$ moiety; a $-S(=O)_2-R^{20}$ moiety; or a $-NR^{21}R^{22}$ moiety.

10. A compound according to claim 1, characterized in that R^9 represents hydrogen or an alkyl radical selected from the group consisting of methyl, ethyl and n-propyl.

11. A compound according to claim 1, characterized in that R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{20} , independently of another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethynyl, propynyl, n-butynyl, n-pentynyl and n-hexynyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7,

8 or 9 substituent(s) independently selected from the group consisting of $-\text{OH}$, F , Cl , Br , I , $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$, $-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{CN}$ and $-\text{NO}_2$;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a $-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-(\text{CH}_2)-$ or $-\text{CH}=\text{CH}-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=\text{O}$), thioxo ($=\text{S}$), $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F , Cl , Br , I , $-\text{CN}$, $-\text{OCF}_3$, $-\text{SCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(\text{O})_2-\text{CH}_3$, $-\text{S}(\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$ and $-\text{N}(\text{C}_2\text{H}_5)_2$;

or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-(\text{CH}_2)-$ or $-\text{CH}=\text{CH}-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F , Cl , Br , I , $-\text{CN}$, $-\text{OCF}_3$, $-\text{SCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(=\text{O})_2-\text{CH}_3$, $-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$ and $-\text{N}(\text{C}_2\text{H}_5)_2$.

12. A compound according to claim 1, characterized in that R^{16} , R^{17} , R^{18} and R^{19} , independently of one another, in

each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of NH_2 , $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$, $-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{NH}-\text{C}(=\text{O})-\text{CH}_3$, $-\text{NH}-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{NH}-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{NH}-\text{C}(=\text{O})-\text{O}-\text{CH}_3$, $-\text{NH}-\text{C}(=\text{O})-\text{O}-\text{C}_2\text{H}_5$, $-\text{NH}-\text{C}(=\text{O})-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}(\text{CH}_3)_3$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{OH}$, $-\text{C}(=\text{O})-\text{OH}$, $-\text{C}(=\text{O})-\text{O}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{O}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$ and $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$;

or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-$, $-(\text{CH}_2)-(\text{CH}_2)-(\text{CH}_2)-$ or $-\text{CH}=\text{CH}-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-\text{CF}_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-\text{O}-\text{CH}_3$, $-\text{O}-\text{C}_2\text{H}_5$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{O}-\text{C}(\text{CH}_3)_3$, $-\text{S}-\text{CH}_3$, $-\text{S}-\text{C}_2\text{H}_5$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{CH}(\text{CH}_3)_2$, $-\text{S}-\text{CH}_2-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{S}-\text{C}(\text{CH}_3)_3$, F , Cl , Br , I , $-\text{CN}$, $-\text{OCF}_3$, $-\text{SCF}_3$, $-\text{SCF}_2\text{H}$, $-\text{SCFH}_2$, $-\text{OH}$, $-\text{SH}$, $-\text{NO}_2$, $-\text{CHO}$, $-\text{C}(=\text{O})-\text{CH}_3$, $-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{C}(\text{CH}_3)_3$, $-\text{CF}_2\text{H}$, $-\text{CFH}_2$, $-\text{C}(=\text{O})-\text{NH}_2$, $-\text{C}(=\text{O})-\text{NH}-\text{CH}_3$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_2\text{H}_5$, $-\text{C}(=\text{O})-\text{NH}-\text{C}_3\text{H}_7$, $-\text{C}(=\text{O})-\text{N}(\text{CH}_3)_2$, $-\text{C}(=\text{O})-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{S}(=\text{O})-\text{CH}_3$, $-\text{S}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})-\text{C}_3\text{H}_7$, $-\text{S}(=\text{O})_2-\text{CH}_3$, $-\text{S}(=\text{O})_2-\text{C}_2\text{H}_5$, $-\text{S}(=\text{O})_2-\text{C}_3\text{H}_7$, $-\text{NH}_2$, $-\text{NH}-\text{CH}_3$, $-\text{NH}-\text{C}_2\text{H}_5$, $-\text{N}(\text{CH}_3)_2$, $-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{O}-\text{C}(=\text{O})-\text{CH}_3$, $-\text{O}-\text{C}(=\text{O})-\text{C}_2\text{H}_5$, $-\text{O}-\text{C}(=\text{O})-\text{CH}(\text{CH}_3)_2$, $-\text{O}-\text{C}(=\text{O})-\text{CH}_2-\text{CH}_2-\text{CH}_3$, $-\text{CH}_2-\text{N}(\text{CH}_3)_2$, $-(\text{CH}_2)-\text{N}(\text{C}_2\text{H}_5)_2$, $-\text{CH}_2-\text{N}(\text{C}_3\text{H}_7)_2$, $-\text{CH}_2-\text{N}(\text{C}_4\text{H}_9)_2$, $-\text{CH}_2-\text{N}(\text{CH}_3)(\text{C}_2\text{H}_5)$ and $-(\text{CH}_2)-\text{morpholinyl}$.

13. A compound according to claim 1, characterized in that R^{21} and R^{22} , independently of another, in each case represent hydrogen;

a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted

with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidyl, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranyl, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydropyranyl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyranyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolinyl, (1,2,3,5,6,8a)-hexahydro-indolizinyll, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxazolinyl, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃—SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂.

14. A compound according to claim 1, characterized in that

X is S or O;

R¹ and R², independently of one another, in each case represent a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl); thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furanlyl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl, imidazo[2,1-b]thiazolyl, 2H-chromenyl, pyranyl, indazolyl, quinazolinyll, [1,31-benzodioxolyl, [1,4]benzodioxanyl, [1,2,3,4]-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, (1,2,3,4)-tetrahydroquinolinyl, [1,2,3,4]-tetrahydroisoquinolinyl, [1,2,3,4]-tetrahydroquinazolinyl and [3,4] dihydro-2H-benzo[1,4]oxazinyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the aromatic or heteroaromatic part of the aforementioned radicals and may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, —CH₂—Cl, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(O)C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂,

—C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅,
 —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂,
 —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—
 C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃,
 —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂,
 —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂,
 phenoxy and thiophenyl, whereby the thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl;

or a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranyl, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydropyranyl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyranyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydrocarbazoly, 9H-carbazoly, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxaziny, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl and norbornenyl, which in each case is optionally bonded to the pyrazoline compound of general formula I via the (hetero)cycloaliphatic part of the aforementioned radicals and may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—Benzyl, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

R³ represents a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl,

cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranyl, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydropyranyl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyranyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydrocarbazoly, 9H-carbazoly, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxaziny, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —O—CH₂—O—CH₃, —O—CH₂—CH₂—O—CH₃, —O—CH₂—O—C₂H₅, —C(OCH₃)(C₂H₅)₂, —C(OCH₃)(CH₃)₂, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—Benzyl, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

a —O—R⁶ moiety; a —NR⁷R⁸ moiety or a —NR⁹—O—R¹⁰ moiety;

R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR⁷;

a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neopentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl and 4-octyl, which may optionally be substituted with 1, 2, 3,

- 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;
- a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH-group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;
- a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclodecyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl and diazepanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;
- a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclodecyl, cyclohexenyl, cycloheptenyl, and cyclooctenyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;
- a —O—R¹¹ moiety; a —S—R¹² moiety, a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;
- R⁵ represents H, F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;
- a radical selected from the group consisting of methyl, —CF₃, —CH₂F, —CF₂H, —C₂F₅, ethyl, —CH₂—CN, —CH₂—OH, n-propyl, isopropyl, —CH₂—CH₂—CN, —CH₂—CH₂—OH, n-butyl, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;
- a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclodecyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl and diazepanyl;
- a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl) and pyrrolyl, which may be bonded via a —(CH₂)—group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, F, Cl and Br;
- a —O—R¹¹ moiety; a —S—R¹² moiety, a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;
- R⁴ and R⁵ together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclodecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, and cyclooctenyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;
- R⁶ represents a hydrogen atom; a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pen-

tyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN, —NO, —NH—C(=O)—CH₃, —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃, —NH—C(=O)—O—CH₃, —NH—C(=O)—O—C₂H₅, —NH—C(=O)—O—C(CH₃)₃, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C(CH₃)₃, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —C(=O)—CH₃, —C(=O)—C₂H₅ and —C(=O)—C(CH₃)₃;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclododecyl, cyclododecyl, cycloheptenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH—group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —NH—C₂H₅, —N(CH₃)₂ and —N(C₂H₅)₂;

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH—group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃,

—O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SOF₃, —SCF₂H, —SCF₂H₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —CH₂—N(CH₃)₂, —(CH₂)—N(C₂H₅)₂, —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅) and —(CH₂)—morpholinyl;

a —P(=O)(OR¹⁶)₂ moiety; a —C(=O)—OR¹⁷ moiety; a —C(=O)—NH—R¹⁸ moiety or a —C(=O)—R¹⁹ moiety;

R⁷ and R⁸, independently of another, in each case represent a hydrogen atom;

a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neopentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of —OH, F, Cl, Br, I, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —CN and —NO₂;

a radical selected from the group consisting of (1,2,3,4)-tetrahydronaphthyl, (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranyl, (2,3)-dihydrothiophenyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranyl, tetrahydropyranyl, (3,4)-dihydro-2H-pyranyl, (3,4)-dihydro-2H-thiopyranyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihy-

dro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinoliziny, (1,2,3,5,6,8a)-hexahydro-indoliziny, decahydroquinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxaziny, adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 (substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-O-CH_2-O-CH_3$, $-O-CH_2-CH_2-O-CH_3$, $-O-CH_2-O-C_2H_5$, $-C(OCH_3)(C_2H_5)_2$, $-C(OCH_3)(CH_3)_2$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-O-Benzyl$, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanly), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-O-Benzyl$, benzyl, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

$-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

a $-P(=O)(OR^{16})_2$ moiety; a $-C(=O)-OR^{17}$ moiety; a $-C(=O)-NH-R^{18}$ moiety; a $-C(=O)-R^{19}$ moiety; a $-S(=O)_2-R^{20}$ moiety; or a $-NR^1R^{22}$ moiety;

R^9 represents hydrogen or an alkyl radical selected from the group consisting of methyl, ethyl and n-propyl.

R^{10} , R^{11} , R^{12} , R^{13} , R^{14} , R^{15} and R^{20} , independently of another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butenyl, n-pentenyl and n-hexenyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of $-OH$, F, Cl, Br, I, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$ and $-NO_2$;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranly, tetrahydrothiophenyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepamyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-O-C(=O)-CH_3$, $-O-C(=O)-C_2H_5$, $-O-C(=O)-CH(CH_3)_2$, $-O-C(=O)-CH_2-CH_2-CH_3$, $-CH_2-N(CH_3)_2$, $-(CH_2)-N(C_2H_5)_2$, $-CH_2-N(C_3H_7)_2$, $-CH_2-N(C_4H_9)_2$, $-CH_2-N(CH_3)(C_2H_5)$ and $-(CH_2)$ -morpholinyl;

R^{16} , R^{17} , R^{18} and R^{19} , independently of one another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of NH_2 , $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-NH-C(=O)-CH_3$, $-NH-C(=O)-C_2H_5$, $-NH-C(=O)-C(CH_3)_3$, $-NH-C(=O)-O-CH_3$, $-NH-C(=O)-O-C_2H_5$, $-NH-C(=O)-O-C(CH_3)_3$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C(CH_3)_3$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-OH$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$ and $-C(=O)-C(CH_3)_3$;

or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$,

$-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-O-C(=O)-CH_3$, $-O-C(=O)-C_2H_5$, $-O-C(=O)-CH(CH_3)_2$, $-O-C(=O)-CH_2-CH_2-CH_3$, $-CH_2-N(CH_3)_2$, $-(CH_2)-N(C_2H_5)_2$, $-CH_2-N(C_3H_7)_2$, $-CH_2-N(C_4H_9)_2$, $-CH_2-N(CH_3)(C_2H_5)$ and $-(CH_2)$ -morpholinyl;

and

R^{21} and R^{22} , independently of another, in each case represent hydrogen;

a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of $-OH$, F, Cl, Br, I, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, $-CN$ and $-NO_2$;

a radical selected from the group consisting of (2,3)-dihydro-1H-cyclopenta[b]indolyl, cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny, imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl, diazepanyl, azocanyl, (2,5)-dihydrofuranlyl, (2,5)-dihydrothiophenyl, (2,3)-dihydrofuranlyl, (2,3)-dihydrofuranlyl, (2,5)-dihydro-1H-pyrrolyl, (2,3)-dihydro-1H-pyrrolyl, tetrahydrothiopyranlyl, tetrahydropyranlyl, (3,4)-dihydro-2H-pyranlyl, (3,4)-dihydro-2H-thiopyranlyl, (1,2,3,6)-tetrahydropyridinyl, (1,2,3,4)-tetrahydropyridinyl, (1,2,5,6)-tetrahydropyridinyl, [1,3]-oxazinanyl, hexahydropyrimidinyl, (5,6)-dihydro-4H-pyrimidinyl, oxazolidinyl, (1,3)-dioxanyl, (1,4)-dioxanyl, (1,3)-dioxolanyl, indolinyl, isoindolinyl, decahydronaphthyl, (1,2,3,4)-tetrahydroquinolinyl, (1,2,3,4)-tetrahydroisoquinolinyl, octahydro-cyclopenta[c]pyrrolyl, (1,3,4,7,9a)-hexahydro-2H-quinolinyl,

(1,2,3,5,6,8a)-hexahydro-indoliziny], decahydro-quinolinyl, dodecahydro-carbazolyl, 9H-carbazolyl, decahydroisoquinolinyl, (6,7)-dihydro-4H-thieno[3,2-c]pyridinyl, (2,3)-dihydro-1H-benzo[de]isoquinolinyl, (1,2,3,4)-tetrahydroquinoxaliny], adamantyl, bicyclo[2.2.1]heptyl, bicyclo[3.1.1]heptyl, norbornenyl, 8-aza-bicyclo[3.2.1]octyl and 8-aza-spiro[4.5]decanyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo ($=O$), thioxo ($=S$), $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-O-CH_2-O-CH_3$, $-O-CH_2-CH_2-O-CH_3$, $-O-CH_2-O-C_2H_5$, $-C(OCH_3)(C_2H_5)_2$, $-C(OCH_3)(CH_3)_2$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-C(=O)-OH$, $-C(=O)-O-CH_3$, $-C(=O)-O-C_2H_5$, $-C(=O)-O-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$, $-N(C_2H_5)_2$, cyclopentyl, cyclohexyl, pyrrolidinyl and piperidinyl;

or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a $-(CH_2)-$, $-(CH_2)-(CH_2)-$, $-(CH_2)-(CH_2)-(CH_2)-$ or $-CH=CH-$ group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-O-CH_3$, $-O-C_2H_5$, $-O-CH_2-CH_2-CH_3$, $-O-CH(CH_3)_2$, $-O-CH_2-CH_2-CH_2-CH_3$, $-O-C(CH_3)_3$, $-S-CH_3$, $-S-C_2H_5$, $-S-CH_2-CH_2-CH_3$, $-S-CH(CH_3)_2$, $-S-CH_2-CH_2-CH_2-CH_3$, $-S-C(CH_3)_3$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, $-OH$, $-SH$, $-NO_2$, $-CHO$, $-C(=O)-CH_3$, $-C(=O)-C_2H_5$, $-C(=O)-C(CH_3)_3$, $-CF_2H$, $-CFH_2$, $-C(=O)-NH_2$, $-C(=O)-NH-CH_3$, $-C(=O)-NH-C_2H_5$, $-C(=O)-NH-C_3H_7$, $-C(=O)-N(CH_3)_2$, $-C(=O)-N(C_2H_5)_2$, $-S(=O)-CH_3$, $-S(=O)-C_2H_5$, $-S(=O)-C_3H_7$, $-S(=O)_2-CH_3$, $-S(=O)_2-C_2H_5$, $-S(=O)_2-C_3H_7$, $-NH_2$, $-NH-CH_3$, $-NH-C_2H_5$, $-N(CH_3)_2$ and $-N(C_2H_5)_2$;

optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

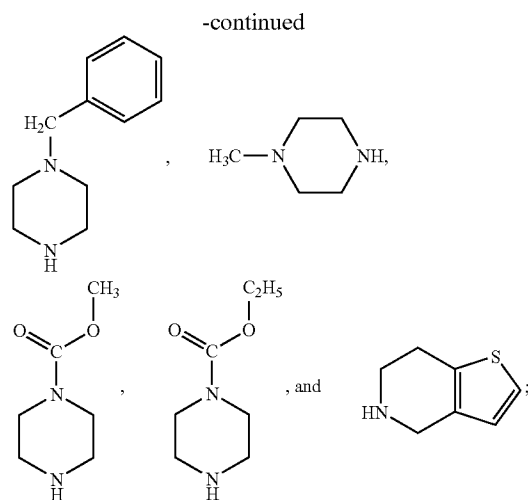
15. A compound according to claim 1, characterized in that

X is O or S;

R¹ represents a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furanlyl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl and imidazo[2,1-b]thiazolyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, $-CH_2-Cl$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-NO_2$, $-OH$, $-O-CH_3$, $-O-C_2H_5$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$, $-SCFH_2$, phenoxy and thiophenyl, whereby the thiophenyl radical can be substituted with 1, 2 or 3 substituents independently selected from the group consisting of F, Cl, Br, methyl, ethyl and n-propyl;

or a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclopentenyl, cyclohexenyl, cycloheptenyl, cyclooctenyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, aziridinyl, azetidiny], imidazolidinyl, thiomorpholinyl, pyrazolidinyl, tetrahydrofuranlyl, tetrahydrothiophenyl, azepanyl and diazepanyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$ and $-SCFH_2$;

R² represents a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl, isoindolyl, pyrimidinyl, pyrazinyl, quinolinyl, isoquinolinyl, benzo[b]furanlyl, benzo[b]thiophenyl, benzo[2,1,3]thiadiazolyl, [1,2,3]-benzothiadiazolyl, [2,1,3]-benzoxadiazolyl, [1,2,3]-benzoxadiazolyl, benzoxazolyl, benzthiazolyl, benzisoxazolyl, benzisothiazolyl and imidazo[2,1-b]thiazolyl, which may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of $-CF_3$, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, $-OH$, $-O-CH_3$, $-O-C_2H_5$, F, Cl, Br, I, $-CN$, $-OCF_3$, $-SCF_3$, $-SCF_2H$ and $-SCFH_2$;



which is in each case bonded to the pyrazoline compound of general formula I in any position of the cyclic part of the aforementioned radicals including the NH— groups, preferably said radicals are bonded to the pyrazoline compound of general formula I at the nitrogen atom of the cyclic part of the aforementioned radicals;

a —O—R⁶ moiety, a —NR⁷R⁸ moiety or a —NR⁹—O—R¹⁰ moiety;

R⁴ represents F; Cl; Br; I; —CN; —NO₂; —NC; —OH; —NH₂; —SH; —C(=O)—H; —C(=O)—OH; —C(=O)—OR¹⁷;

a radical selected from the group consisting of methyl, —CF₃, —CH₂F, —CF₂H, —C₂F₅, ethyl, —CH₂—CN, —CH₂—OH, n-propyl, isopropyl, —CH₂—CH₂—CN, —CH₂—CH₂—OH, n-butyl, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl and 3-hexyl;

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl) and pyrrolyl, which may be bonded via a —(CH₂)— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, F, Cl and Br;

a —O—R¹¹ moiety; a —S—R¹² moiety, a —NH—R¹³ moiety or a —NR¹⁴R¹⁵ moiety;

R⁵ represents H; F; Cl; Br; —C(=O)—OH; —C(=O)—OR¹⁷; or an alkyl radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl and n-butyl;

or R⁴ and R⁵ together with the bridging carbon atom form a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclopentenyl, cyclohexenyl, cycloheptenyl and cyclooctenyl;

R⁶ represents a hydrogen atom; a radical selected from the group consisting of methyl, —CF₃, —CH₂F, —CF₂H, —CH₂—O—CH₃, —C₂F₅, —CH₂—CH₂—F, ethyl, —CH₂—CN, —CH₂—OH, n-propyl, isopropyl, —CH₂—CH₂—CN, —CH₂—CH₂—OH, —CH₂—CH₂—OCH₃, n-butyl, —CH₂—CH₂—CH₂—CN, —CH₂—CH₂—CH₂—OH, —CH₂—CH₂—CH₂O—CH₃, isobutyl, sec-butyl, tert-butyl, n-pentyl, —CH₂—CH₂—CH₂—O—CH₃, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl and n-octyl;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, pyrrolidinyl, piperidinyl, piperazinyl, homopiperazinyl, morpholinyl, imidazolidinyl, azepanyl, 8-aza-bicyclo[3.2.1]octyl and diazepanyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of oxo (=O), thioxo (=S), methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃ and —O—C(CH₃)₃;

a radical selected from the group consisting of pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl and imidazolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—C(CH₃)₃, F, Cl, Br, I, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —CH₂—N(CH₃)₂, —(CH₂)—N(C₂H₅)₂, —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅) and —(CH₂)—morpholinyl;

a —P(=O)(OR¹⁶)₂ moiety; a —C(=O)—OR¹⁷ moiety; a —C(=O)—NH—R¹⁸ moiety or a —C(=O)—R¹⁹ moiety;

R⁷ and R⁸, independently of another, in each case represent a hydrogen atom;

a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6-methyl)-octyl, —CH₂—NH₂, —CH₂—N(CH₃)₂, —CH₂—CH—NH₂, —CH₂—CH₂—N(CH₃)₂, —CH₂—CH₂—N(C₂H₅)₂, —CH₂—CH₂—CH₂—NH₂, —CH₂—N(CH₃)₂ and —CH₂—CH₂—N(C₂H₅)₂;

a radical selected from the group consisting of morpholinyl, piperidinyl, pyrrolidinyl, cyclopropyl,

—SCFH₂, —OH, —SH, —NO₂, —CHO,
—C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—
C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂,
—C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅,
—C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂,
—C(=O)—N(C₂H₅)₂, —S(=O)—CH₃,
—S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—
CH₃, —S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇,
—NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂
and —N(C₂H₅)₂;

R¹⁶, R¹⁷, R¹⁸ and R¹⁹, independently of one another, in each case represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, vinyl, n-propenyl, n-butenyl, n-pentenyl, n-hexenyl, ethinyl, propinyl, n-butinyl, n-pentinyl and n-hexinyl, which may optionally be substituted with 1, 2, 3, 4, 5, 6, 7, 8 or 9 substituent(s) independently selected from the group consisting of NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —NH—C(=O)—CH₃, —NH—C(=O)—C₂H₅, —NH—C(=O)—C(CH₃)₃, —NH—C(=O)—O—CH₃, —NH—C(=O)—O—C₂H₅, —NH—C(=O)—O—C(CH₃)₃, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C(CH₃)₃, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —OH, —C(=O)—OH, —C(=O)—O—CH₃, —C(=O)—O—C₂H₅, —C(=O)—O—C(CH₃)₃, —C(=O)—CH₃, —C(=O)—C₂H₅ and —C(=O)—C(CH₃)₃;

or a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl), pyrrolyl, oxazolyl, isoxazolyl, thiazolyl, isothiazolyl, imidazolyl, pyrazolyl, oxadiazolyl, thiadiazolyl, triazolyl, pyridazinyl, indolyl and isoindolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, —O—CH₃, —O—C₂H₅, —O—CH₂—CH₂—CH₃, —O—CH(CH₃)₂, —O—CH₂—CH₂—CH₂—CH₃, —O—C(CH₃)₃, —S—CH₃, —S—C₂H₅, —S—CH₂—CH₂—CH₃, —S—CH(CH₃)₂, —S—CH₂—CH₂—CH₂—CH₃, —S—C(CH₃)₃, F, Cl, Br, I, —CN, —OCF₃, —SCF₃, —SCF₂H, —SCFH₂, —OH, —SH, —NO₂, —CHO, —C(=O)—CH₃, —C(=O)—C₂H₅, —C(=O)—C(CH₃)₃, —CF₂H, —CFH₂, —C(=O)—NH₂, —C(=O)—NH—CH₃, —C(=O)—NH—C₂H₅, —C(=O)—NH—C₃H₇, —C(=O)—N(CH₃)₂, —C(=O)—N(C₂H₅)₂, —S(=O)—CH₃, —S(=O)—C₂H₅, —S(=O)—C₃H₇, —S(=O)₂—CH—S(=O)₂—C₂H₅, —S(=O)₂—C₃H₇, —NH₂, —NH—CH₃, —NH—C₂H₅, —N(CH₃)₂, —N(C₂H₅)₂, —O—C(=O)—CH₃, —O—C(=O)—C₂H₅, —O—C(=O)—CH(CH₃)₂, —O—C(=O)—CH₂—CH₂—CH₃, —CH₂—N(CH₃)₂, —(CH₂)—N(C₂H₅)₂, —CH₂—N(C₃H₇)₂, —CH₂—N(C₄H₉)₂, —CH₂—N(CH₃)(C₂H₅) and —(CH₂)—morpholinyl;

and

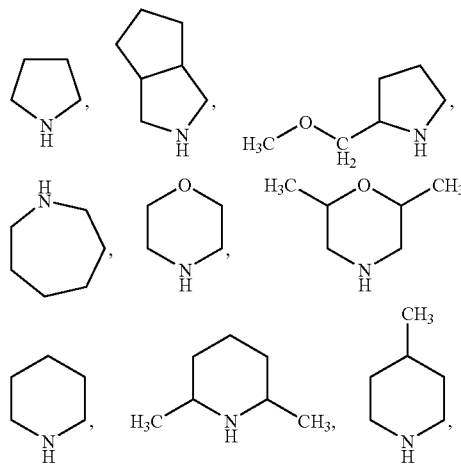
R²¹ and R₂₂, independently of another, in each case represent hydrogen;

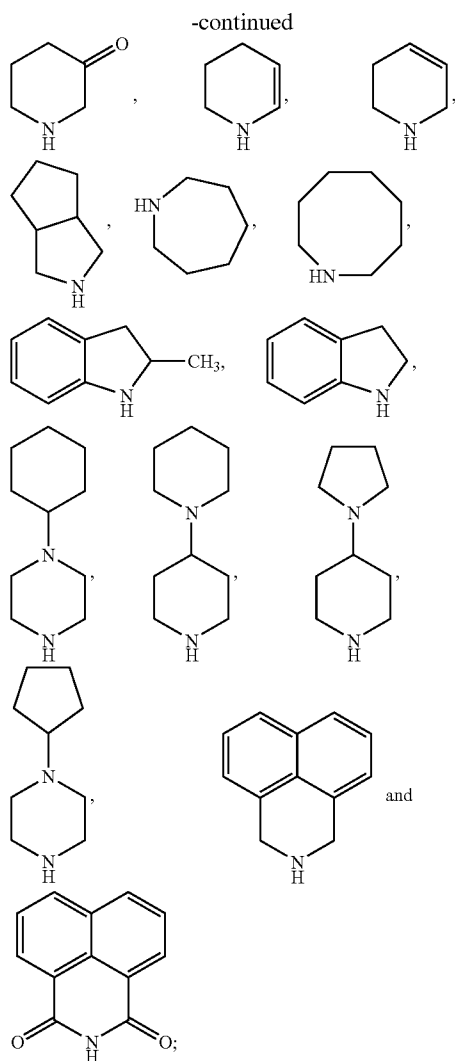
a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl, neo-pentyl, n-hexyl, 2-hexyl, 3-hexyl, n-heptyl, 2-heptyl, 3-heptyl, 4-heptyl, n-octyl, 2-octyl, 3-octyl, 4-octyl, 2-(6-methyl)-heptyl, 2-(5-methyl)-heptyl, 2-(5-methyl)-hexyl, 2-(4-methyl)-hexyl, 2-(7-methyl)-octyl; 2-(6methyl)-octyl, —CH₂—NH₂, —CH—N(CH₃)₂, —CH₂—CH—NH₂, —CH₂—CH₂—N(CH₃)₂, —CH₂—CH₂—N(C₂H₅)₂, —CH₂—CH₂—CH₂—NH₂, —CH₂—CH₂—CH₂—N(CH₃)₂ and —CH₂—CH₂—N(C₂H₅)₂;

a radical selected from the group consisting of cyclopropyl, cyclobutyl, cyclopentyl, cyclohexyl, cycloheptyl, cyclooctyl, cyclononyl, cyclodecyl, cycloundecyl, cyclododecyl, cyclotridecyl, cyclotetradecyl and bicyclo[2.2.1]heptyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —OH, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl and n-hexyl;

a radical selected from the group consisting of phenyl, naphthyl, pyridinyl, furyl (furanlyl), thienyl (thiophenyl) and triazolyl, which may be bonded via a —(CH₂)—, —(CH₂)—(CH₂)—, —(CH₂)—(CH₂)—(CH₂)— or —CH=CH— group and/or may optionally be substituted with 1, 2, 3, 4 or 5 substituent(s) independently selected from the group consisting of —CF₃, methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, 2-butyl, tert-butyl, n-pentyl, 2-pentyl, n-hexyl, F, Cl and Br;

or a radical selected from the group consisting of





which is in each case bonded to the pyrazoline compound of general formula I in any position of the cyclic part of the aforementioned radicals including the NH-groups, preferably said radicals are bonded to the pyrazoline compound of general formula I at the nitrogen atom of the cyclic part of the aforementioned radicals;

and

R¹¹ and R¹⁷, independently of one another, each represent a radical selected from the group consisting of methyl, ethyl, n-propyl, isopropyl, n-butyl, isobutyl, sec-butyl, tert-butyl, n-pentyl, 2-pentyl, 3-pentyl and neo-pentyl;

optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

17. A compound or salt according to claim 1 selected from the group consisting of

- [1] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydro-chloride
- [2] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide hydro-chloride
- [3] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide
- [4] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide
- [5] cis-[5-(4-Chloro-phenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-(4-cyclohexyl-piperazin-1-yl)-methanone
- [6] trans-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-(4-cyclohexyl-piperazin-1-yl)-methanone
- [7] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid pyrrolidin-1-ylamide
- [8] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid pyrrolidin-1-ylamide
- [9] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (4-methyl-piperidin-1-yl)-amide
- [10] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (4-methyl-piperidin-1-yl)-amide
- [11] cis-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone
- [12] trans-[5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl]-piperidin-1-yl-methanone
- [13] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta[c]pyrrol-2-yl)-amide
- [14] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta-[c]pyrrol-2-yl)-amide
- [15] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (2,3-dihydro-indol-1-yl)-amide
- [16] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (2,3-dihydro-indol-1-yl)-amide
- [17] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclobutylamide

- [18] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclohexyl methyl-amide
- [19] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [20] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [21] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [22] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [23] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester
- [24] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid methyl ester
- [25] cis-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid ethyl ester
- [26] trans-5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid ethyl ester
- [27] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclohexyl ester
- [28] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [29] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [30] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [31] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [32] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [33] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [34] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [35] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [36] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [37] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [38] 5-(4-Chloro-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [39] 5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [40] 5-(4-Chloro-phenyl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [41] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [42] 1-(2,4-Dichloro-phenyl)-4-ethyl-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [43] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [44] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [45] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide [46] 1-(2,4-Dichloro-phenyl)-5-(4-fluoro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [47] 1-(2,4-Dichloro-phenyl)-4-fluoromethyl-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [48] 1-(2,4-Dichlorophenyl)-5-(4-fluoro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [49] 4-Cyano-1-(2,4-dichloro-phenyl)-5-(4-fluoro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [50] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide [51] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [52] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [53] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [54] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [55] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [56] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [57] 5-(4-Bromo-phenyl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide

- [58] 5-(4-Bromo-phenyl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [59] cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [60] trans-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [61] cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [62] trans-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [63] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [64] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [65] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [66] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [67] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [68] 5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [69] 5-(5-Chloro-thiophen-2-yl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [70] cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [71] trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [72] cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [73] trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [74] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [75] cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [76] trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [77] cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [78] trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [79] 5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [80] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [81] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-hydroxy-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [82] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-(2-hydroxy-ethyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [83] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-fluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [84] 5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-formyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [85] 5-(5-Bromo-thiophen-2-yl)-4-cyano-1-(2,4-dichloro-phenyl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- [86] cis-5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [87] trans-[5-(5-Chloro-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-yl]-piperidin-1-yl-methanone
- [88] cis-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [89] trans-5-(5-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [90] cis-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [91] trans-5-(4-Bromo-thiophen-2-yl)-1-(2,4-dichloro-phenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid,
- 92 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 93 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

- 94 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 95 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 96 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- 97 trans-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- 98 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 99 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 100 cis-5-(4-chlorophenyl)-N-(4-cyclopentylpiperazin-1-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 101 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-morpholino-4,5-dihydro-1H-pyrazole-3-carboxamide
- 102 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(4-methylpiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 103 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(2,6-dimethylpiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 104 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (1,3-dioxo-1H,3H-benzo[de]isoquinolin-2-yl)-amide
- 105 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (1H,3H-benzo[de]isoquinolin-2-yl)-amide
- 106 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((R)-2-(methoxymethyl)pyrrolidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 107 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((S)-2-(methoxymethyl)pyrrolidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 108 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid (hexahydro-cyclopenta[c]pyrrol-2-yl)-amide hydrochloride
- 109 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 110 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 111 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 112 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 113 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(2-methylindolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 114 cis-5-(4chlorophenyl)-N-(cyclohexylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 115 cis-5-(4-chlorophenyl)-N-(cycloheptylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 116 cis-5-(4-chlorophenyl)-N-cyclododecyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 117 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(1,2,3,4-tetrahydronaphthalen-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 118 cis-N-(4-tert-butylcyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 119 cis-5-(4-chlorophenyl)-N-cyclooctyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 120 cis-N-(azocan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 121 cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 122 cis-azocan-1-yl(cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazol-3-yl)methanone
- 123 cis-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 124 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 125 trans-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 126 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 127 cis-5-(4-chlorophenyl)-N-(cyclohexylmethyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 128 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 129 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

- 130 (-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1R,2R)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 131 (+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-((1R,2R)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 132 (+)-cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 133 (-)-cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 134 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(4-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 135 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(4-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 136 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(3-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 137 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(3-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 138 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(2-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 139 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(2-hydroxypiperidin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 140 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 141 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 142 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 143 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 144 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 145 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 146 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 147 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 148 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 149 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 150 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid cyclohexyl ester
- 151 N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 152 1-(2-chlorophenyl)-5-(4-chlorophenyl)-4,4-dimethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 153 N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 154 cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- 155 trans-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-trifluoromethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid piperidin-1-ylamide
- 156 cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 157 trans-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 158 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 159 trans 1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 160 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-3-(piperidin-1-yl)carbamoyl)-4,5-dihydro-1H-pyrazole-4-carboxylic acid
- 161 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4,4-difluoro-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 162 cis-5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 163 cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 164 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-cyano-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 165 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-cyano-4,5-dihydro-1H-pyrazole-3-carboxamide
- 166 trans-5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

- 167 trans-N-(azepan-1-yl)-5-(4-chlorophenyl)-4-cyano-1-(2,4-dichlorophenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 168 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-cyano-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 169 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1-pyrazole-3-carboxylic acid
- 170 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 171 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 172 trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 173 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 174 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 175 cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 176 trans-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 177 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 178 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 179 cis-5-(4-chlorophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 180 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-N-cycloheptyl-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 181 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 182 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 183 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 184 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 185 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 186 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 187 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 188 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 189 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 190 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 191 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 192 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 193 cis-5-(4-bromophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 194 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-cycloheptyl-4-ethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 195 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 196 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 197 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 198 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-ethyl-N-(indolin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 199 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 200 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 201 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 202 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 203 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 204 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 205 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

- 206 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 207 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 208 trans-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 209 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 210 cis-N-(azepan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 211 cis-5-(4-bromophenyl)-N-cycloheptyl-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 212 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-cycloheptyl-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 213 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 214 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 215 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 216 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 217 (+)-cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 218 (-)-cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 219 (+)-cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 220 (-)-cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 221 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 222 trans-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 223 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 224 trans-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 225 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 226 trans-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 227 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 228 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 229 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 230 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 231 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 232 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 233 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 234 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 235 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 236 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 237 (+)-cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 238 (-)-cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 239 (+)-cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 240 (-)-cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 241 cis-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 242 trans-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 243 cis-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

- 244 trans-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 245 cis-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 246 trans-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 247 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 248 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 249 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 250 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 251 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 252 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 253 cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 254 cis-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 255 cis-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 256 cis-1-(2-chlorophenyl)-N-(indolin-1-yl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 257 (+)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 258 (-)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 259 (+)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 260 (-)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-iodophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 261 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 262 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 263 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 264 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 265 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 266 (+)-cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 267 (-)-cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 268 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 269 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 270 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 271 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 272 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 273 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 274 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 275 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 276 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 277 cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 278 cis-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 279 cis-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 280 cis-1-(2-chlorophenyl)-N-(indolin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 281 (+)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide

- 282 (-)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 283 (+)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 284 (-)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 285 cis-1-(2,4-dichlorophenyl)-N-(4-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 286 cis-1-(2-chlorophenyl)-N-(4-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 287 cis-1-(2,4-dichlorophenyl)-N-(3-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 288 cis-1-(2-chlorophenyl)-N-(3-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 289 cis-1-(2,4-dichlorophenyl)-N-(2-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 290 cis-1-(2-chlorophenyl)-N-(2-hydroxypiperidin-1-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 291 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 292 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(4-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 293 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 294 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(3-oxopiperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 295 cis-1-(2,4-dichlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 296 cis-1-(2-chlorophenyl)-N-(3,4-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 297 cis-1-(2,4-dichlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 298 cis-1-(2-chlorophenyl)-N-(5,6-dihydropyridin-1(2H)-yl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 299 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 300 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 301 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 302 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 303 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 304 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 305 1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,4-dimethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 306 N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,4-dimethyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 307 1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4,4-dimethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 308 1-(2,4-dichlorophenyl)-4-formyl-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 309 1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-3-(piperidin-1-ylcarbamoyl)-4,5-dihydro-1H-pyrazole-4-carboxylic acid
- 310 1-(2,4-dichlorophenyl)-4-(2-hydroxyethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 311 1-(2,4-dichlorophenyl)-4-(fluoromethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 312 cis-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 313 trans-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 314 cis-N-(azepan-1-yl)-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 315 trans-N-(azepan-1-yl)-4-cyano-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 316 cis-1-(2-chlorophenyl)-4-cyano-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 317 trans-1-(2-chlorophenyl)-4-cyano-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

- 318 1-(2,4-dichlorophenyl)-4-hydroxy-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 319 1-(2-chlorophenyl)-4,4-difluoro-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 320 1-(2-chlorophenyl)-4-formyl-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 321 1-(2-chlorophenyl)-5-(4-methoxyphenyl)-3-(piperidin-1-ylcarbamoyl)-4,5-dihydro-1H-pyrazole-4-carboxylic acid
- 322 1-(2-chlorophenyl)-4-(2-hydroxyethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 323 1-(2-chlorophenyl)-4-(flUoromethyl)-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 324 1-(2-chlorophenyl)-4-hydroxy-5-(4-methoxyphenyl)-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 325 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 326 trans-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 327 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 328 trans-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 329 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 330 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 331 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 332 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 333 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 334 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-ethoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 335 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 336 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 337 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 338 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 339 (+)-cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 340 (-)-cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 341 (+)-cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 342 (-)-cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 343 cis-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 344 trans-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 345 cis-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 346 trans-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 347 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 348 trans-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 349 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 350 trans-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 351 cis-N-cycloheptyl-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 352 cis-1-(2-chlorophenyl)-N-cycloheptyl-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 353 cis-1-(2,4-dichlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride

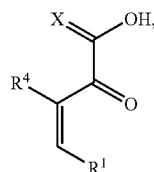
- 354 cis-1-(2-chlorophenyl)-N-(hexahydrocyclopenta[c]pyrrol-2(1H)-yl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 355 cis-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 356 cis-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 357 (+)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 358 (-)-cis-1-(2,4-dichlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 359 (+)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 360 (-)-cis-1-(2-chlorophenyl)-N-((1S,2S)-2-hydroxycyclohexyl)-5-(4-hydroxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 361 cis-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 362 trans-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 363 cis-1-(2-chlorophenyl)-5-(5-chlorothiophen-2-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 364 trans-1-(2-chlorophenyl)-5-(5-chlorothiophen-2-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 365 cis-5-(5-bromothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 366 trans-5-(5-bromothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 367 cis-1-(2,4-dichlorophenyl)-4-methyl-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 368 trans-1-(2,4-dichlorophenyl)-4-methyl-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 369 cis-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 370 trans-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 371 cis-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 372 trans-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 373 cis-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 374 trans-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- 375 cis-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 376 trans-1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 377 cis-1-(2-chlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 378 trans-1-(2-chlorophenyl)-4-methyl-5-phenyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 379 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide hydrochloride
- 380 trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 381 cis-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 382 trans-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 383 cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 384 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 385 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 386 trans-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 387 cis-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 388 trans-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 389 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 390 trans-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 391 cis-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 392 trans-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide

- 393 cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 394 cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 395 trans-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 396 cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 397 cis-N-(azepan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 398 trans-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 399 cis-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 400 trans-1-(2,4-dichlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 401 cis-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 402 trans-1-(2-chlorophenyl)-5-(4-ethoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 403 cis-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide 404 trans-1-(2,4-dichlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 405 cis-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 406 trans-1-(2-chlorophenyl)-5-(4-hydroxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carbothioamide
- 407 7-(4-chlorophenyl)-6-(2,4-dichlorophenyl)-5,6-diaza-spiro[2.4]hept-4-ene-4-carboxylic acid piperidin-1-ylamide
- 408 6-(2,4-dichlorophenyl)-7-(4-methoxyphenyl)-5,6-diaza-spiro[2.4]hept-4-ene-4-carboxylic acid piperidin-1-ylamide
- 409(+)-cis-N-N-((1S,2S)-2-(benzyloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- [410] cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [411] cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- [412] (4R,5S)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [413] cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [414] cis-N-(azepan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 415 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-N-(indolin-1-yl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 416 trans-ethyl 5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-(trifluoromethyl)-4,5-dihydro-1H-pyrazole-3-carboxylate
- 417 cis-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 418 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 419(-)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 420(+)-cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 421 trans-ethyl 1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylate
- 422 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-((1R,2S,4R)-1,7,7-trimethylbicyclo[2.2.1]heptan-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 423 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(3-methylcyclohexyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 424 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(2-methylcyclohexyl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 426 trans-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 427 cis-5-(5-chlorothiophen-2-yl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- 428 cis-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [429] 1-(2,4-dichlorophenyl)-4-methyl-5-phenyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid
- [430] cis-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-5-(thiophen-2-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide hydrochloride
- [431] trans-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide

- 432 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-ethyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 434 cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide
- 436(+)-cis-N-((1S,2S)-2-(benzyloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 437(-)-cis-N-((1R,2R)-2-(benzyloxy)cyclohexyl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 438 cis-N-(azocan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 439 cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 440 cis-N-(azocan-1-yl)-5-(4-bromophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 441 cis-N-(azocan-1-yl)-5-(4-bromophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 442 cis-N-(azocan-1-yl)-1-(2,4-dichlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 443 cis-N-(azocan-1-yl)-1-(2-chlorophenyl)-5-(4-fluorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide
- 444(+)-cis-5-(4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- 445(-)-cis- (4-Chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxylic acid azepan-1-ylamide hydrochloride
- [446] cis-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [447] cis-5-(4-chlorophenyl)-1-(2-chlorophenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [448] cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2,4-dichlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [449] cis-N-(azepan-1-yl)-5-(4-chlorophenyl)-1-(2-chlorophenyl)-4-methyl-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide
- [450] cis-1-(2,4-dichlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide and
- [451] cis-1-(2-chlorophenyl)-5-(4-methoxyphenyl)-4-methyl-N-(piperidin-1-yl)-4,5-dihydro-1H-pyrazole-3-carboxamide N-oxide;

optionally in form of one of its stereoisomers, preferably enantiomers or diastereomers, a racemate or in form of a mixture of at least two of its stereoisomers, preferably enantiomers and/or diastereomers, in any mixing ratio, or a corresponding N-oxide thereof, or a physiologically acceptable salt thereof, or a corresponding solvate thereof.

18. Process for the preparation of a compound of general formula I according to claim 1, wherein R⁵ represents hydrogen, characterized in that at least one compound of general formula II,



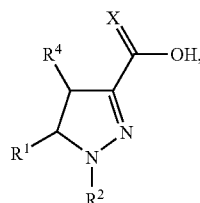
II

wherein R¹, X and R⁴ have the meaning according to claim 1, is reacted with at least one compound of general formula III,



III

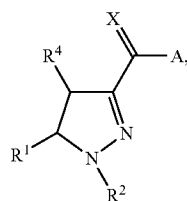
or a corresponding salt thereof, wherein R² has the meaning according to claim 1, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one acid, to yield at least one compound of general formula IV,



IV

wherein R¹, X, R² and R⁴ have the meaning according to claim 1, which is optionally isolated and/or purified,

and at least one compound of general formula IV is reacted with an activating agent in a reaction medium, optionally in an inert atmosphere, to yield at least one compound of general formula V,



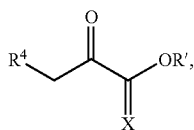
V

wherein R^1 , X, R^2 and R^4 have the meaning according to claim 1 and A represents a leaving group, which is optionally purified and/or isolated,

and at least one compound of general formula V is reacted with at least one compound of general formula R^3-H , wherein R^3 has the meaning according to claim 1, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base selected from the group consisting of diisopropylethylamine, triethylamine, pyridine, dimethylaminopyridine and N-methylmorpholine, to yield at least one compound of general formula I, wherein R^1 , R^2 , X, R^3 and R^4 have the meaning according to claim 1 and R^5 represents hydrogen, which is optionally purified and/or isolated;

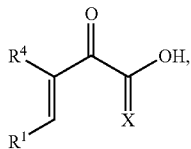
or at least one compound of general formula IV is reacted with at least one compound of general formula R^3-H , wherein R^3 represents a $-NR^7R^8$ moiety, whereby R^7 and R^8 have the meaning according to claim 1, in a reaction medium, in the presence of at least one coupling agent, optionally in the presence of at least one base, to yield at least one compound of general formula I, wherein R^1 , R^2 , X and R^4 have the meaning according to claim 1, R^3 represents a $-NR^7R^8$ moiety and R^5 represents hydrogen, which is optionally purified and/or isolated.

19. Process for the preparation of a compound of general formula I according to claim 1, wherein R^5 represents hydrogen, characterized in that at least one compound of general formula $R^1-C(=O)-H$ (general formula VII), wherein R^1 has the meaning according to claim 1, is reacted with at least one compound of general formula VI,



VI

wherein R^4 and X have the meaning according to claim 1 and R' represents a linear or branched C_{1-6} -alkyl radical, a potassium cation or a sodium cation, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base, to yield at least one compound of general formula II,

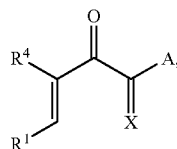


II

wherein R^1 , X and R^4 have the meaning according to claim 1, which is optionally purified and/or isolated,

and at least one compound of general formula II is reacted with an activating agent in a reaction medium, optionally in an inert atmosphere, to yield at least one compound of general formula VIII,

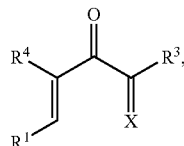
VIII



wherein R^1 , X and R^4 have the meaning according to claim 1 and A represents a leaving group, which is optionally purified and/or isolated,

and at least one compound of general formula VII is reacted with at least one compound of general formula R^3-H , wherein R^3 has the meaning according to claim 1, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base selected from the group consisting of diisopropylethylamine, triethylamine, pyridine, dimethylaminopyridine and N-methylmorpholine, to yield at least one compound of general formula IX,

IX



wherein R^1 , X, R^3 and R^4 have the meaning according to claim 1, which is optionally purified and/or isolated;

or at least one compound of general formula II is reacted with at least one compound of general formula R^3-H , wherein R^3 represents a $-NR^7R^8$ moiety, whereby R^7 and R^8 have the meaning according to claim 1, in a reaction medium, in the presence of at least one coupling agent, optionally in the presence of at least one base, to yield at least one compound

general formula IX, wherein R^3 represents a $-NR^7R^8$ moiety, which is optionally purified and/or isolated,

and at least one compound of general formula IX is reacted with at least one compound of general formula III,

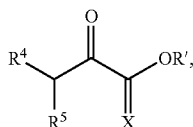


III

wherein R^2 has the meaning according to claim 1, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one acid, to yield at least one compound of general formula I, wherein R^1 , X, R^2 , R^3 and R^4 have the meaning according to claim 1 and R^5 represents hydrogen, which is optionally purified and/or isolated.

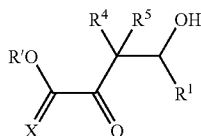
20. Process for the preparation of a compound of general formula I according to claim 1, wherein R^5 is unlike hydrogen, characterized in that at least one compound of general formula $R^1-C(=O)-H$ (general formula VII), wherein R^1

has the meaning according to claim 1, is reacted with at least one compound of general formula VIb,



VIb

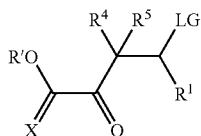
wherein R^4 , R^5 and X have the meaning according to claim 1, R^5 is unlike hydrogen and R' represents a linear or branched C_{1-6} -alkyl radical, a potassium cation or a sodium cation, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base, to yield at least one compound of general formula XXXI,



XXXI

wherein R^1 , R^4 , R^5 and X have the meaning according to claim 1, R^5 is unlike hydrogen, and R' represents a linear or branched C_{1-6} -alkyl radical, a potassium cation or a sodium cation,

and at least one compound of general formula XXXXI is reacted with a reagent, that transforms a hydroxyl group into a leaving group, preferably with a reagent selected from the group consisting of methansulfonylchloride and toluolsulfonylchloride, in a reaction medium, optionally in the presence of at least one base, preferably in the presence of at least one base selected from the group consisting of triethylamine, diisopropylethylamine, pyridine and N-methylmorpholine, to yield a compound of general formula XXXXII,



XXXXII

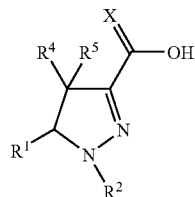
wherein R^1 , R^4 , R^5 and X have the meaning according to claim 1, R^5 is unlike hydrogen, R' represents a linear or branched C_{1-6} -alkyl radical, a potassium cation or a sodium cation, and LG is a leaving group, preferably mesyl or tosyl;

and at least one compound of general formula XXXXII is reacted with at least one compound of general formula III,



III

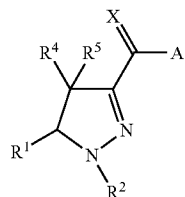
or a corresponding salt thereof, wherein R^2 has the meaning according to claim 1, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one acid, to yield at least one compound of general formula IVb,



IVb

wherein R^1 , X , R^2 , R^4 and R^5 have the meaning according to claim 1 and R^5 is unlike hydrogen, which is optionally isolated and/or purified,

and at least one compound of general formula IVb is reacted with an activating agent in a reaction medium, optionally in an inert atmosphere, to yield at least one compound of general formula Vb,



wherein R^1 , X , R^2 , R^4 and R^5 have the meaning according to claim 1, R^5 is unlike hydrogen and A represents a leaving group, which is optionally purified and/or isolated,

and at least one compound of general formula Vb is reacted with at least one compound of general formula R^3-H , wherein R^3 has the meaning according to claim 1, in a reaction medium, optionally in an inert atmosphere, optionally in the presence of at least one base selected from the group consisting of diisopropylethylamine, triethylamine, pyridine, dimethylaminopyridine and N-methylmorpholine, to yield at least one compound of general formula I, wherein R^1 , R^2 , X , R^3 , R^4 and R^5 have the meaning according to claim 1 and R^5 is unlike hydrogen, which is optionally purified and/or isolated;

or at least one compound of general formula IVb is reacted with at least one compound of general formula R^3-H , wherein R^3 represents a $-NR^7R^8$ moiety, whereby R^7 and R^8 have the meaning according to claim 1, in a reaction medium, in the presence of at least one coupling agent, optionally in the presence of at least one base, to yield at least one compound of general formula I, wherein R^1 , R^2 , X , R^4 and R^5 have the meaning according to claim 1, R^3 represents a $-NR^7R^8$ moiety and R^5 is unlike hydrogen, which is optionally purified and/or isolated.

21. Medicament comprising at least one compound according to claim 1 including the aforementioned

excluded compounds and optionally at least one physiologically acceptable auxiliary agent.

22. Medicament according to claim 21 for the modulation of cannabinoid-receptors, preferably cannabinoid 1 (CB₁) receptors, for the prophylaxis and/or treatment of disorders of the central nervous system, disorders of the immune system, disorders of the cardiovascular system, disorders of the endocrinous system, disorders of the respiratory system, disorders of the gastrointestinal tract or reproductive disorders.

23. Medicament according to claim 21 for the prophylaxis and/or treatment of food intake disorders, preferably bulimia, anorexia, cachexia, obesity, type II diabetes mellitus (non-insuline dependent diabetes mellitus), more preferably obesity.

24. Medicament according to claim 21 for the prophylaxis and/or treatment of psychosis.

25. Medicament according to claim 21 for the prophylaxis and/or treatment of alcohol abuse and/or alcohol addiction, nicotine abuse and/or nicotine addiction, drug abuse and/or drug addiction and/or medicament abuse and/or medicament addiction, preferably drug abuse and/or drug addiction and/or nicotine abuse and/or nicotine addiction.

26. Medicament according to claim 21 for the prophylaxis and/or treatment of cancer, preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of brain cancer, bone cancer, lip cancer, mouth cancer, esophageal cancer, stomach cancer, liver cancer, bladder cancer, pancreas cancer, ovary cancer, cervical cancer, lung cancer, breast cancer, skin cancer, colon cancer, bowel cancer and prostate cancer, more preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of colon cancer, bowel cancer and prostate cancer.

27. Medicament according to claim 21 for the prophylaxis and/or treatment of one or more disorders selected from the group consisting of bone disorders, preferably osteoporosis (e.g. osteoporosis associated with a genetic predisposition, sex hormone deficiency, or aging), cancer-associated bone disease or Paget's disease of bone; schizophrenia, anxiety, depression, epilepsy, neurodegenerative disorders, cerebella disorders, spinocerebella disorders, cognitive disorders, cranial trauma, head trauma, stroke, panic attacks, peripheral neuropathy, glaucoma, migraine, Morbus Parkinson, Morbus Huntington, Morbus Alzheimer, Raynaud's disease, tremblement disorders, compulsive disorders, senile dementia, thymus disorders, tardive dyskinesia, bipolar disorders, medicament-induced movement disorders, dystonia, endotoxemic shock, hemorrhagic shock, hypotension, insomnia, immunologic disorders, sclerotic plaques, vomiting, diarrhea, asthma, memory disorders, pruritus, pain, or for potentiation of the analgesic effect of narcotic and non-narcotic analgesics, or for influencing intestinal transit.

28. Use of at least one substituted pyrazoline compound according to claim 1 for the preparation of a medicament for the modulation of cannabinoid-receptors, preferably cannabinoid 1 (CB₁) receptors, for the prophylaxis and/or treatment of disorders of the central nervous system, disorders of the immune system, disorders of the cardiovascular system, disorders of the endocrinous system, disorders of the respiratory system, disorders of the gastrointestinal tract or reproductive disorders.

29. Use of at least one substituted pyrazoline compound according to claim 1 for the preparation of a medicament for

the prophylaxis and/or treatment of food intake disorders, preferably bulimia, anorexia, cachexia, obesity, type II diabetes mellitus (non-insuline dependent diabetes mellitus), more preferably obesity.

30. Use of at least one substituted pyrazoline compound according to claim 1 for the preparation of a medicament for the prophylaxis and/or treatment of psychosis.

31. Use of at least one substituted pyrazoline compound according to claim 1 for the preparation of a medicament for the prophylaxis and/or treatment of alcohol abuse and/or alcohol addiction, nicotine abuse and/or nicotine addiction, drug abuse and/or drug addiction and/or medicament abuse and/or medicament addiction, preferably drug abuse and/or drug addiction and/or nicotine abuse and/or nicotine addiction.

32. Use of at least one substituted pyrazoline compound according to claim 1 for the preparation of a medicament for the prophylaxis and/or treatment of cancer, preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of brain cancer, bone cancer, lip cancer, mouth cancer, esophageal cancer, stomach cancer, liver cancer, bladder cancer, pancreas cancer, ovary cancer, cervical cancer, lung cancer, breast cancer, skin cancer, colon cancer, bowel cancer and prostate cancer, more preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of colon cancer, bowel cancer and prostate cancer.

33. Use of at least one substituted pyrazoline compound according to claim 1 for the preparation of a medicament for the prophylaxis and/or treatment of one or more disorders selected from the group consisting of bone disorders, preferably osteoporosis (e.g. osteoporosis associated with a genetic predisposition, sex hormone deficiency, or aging), cancer-associated bone disease or Paget's disease of bone; schizophrenia, anxiety, depression, epilepsy, neurodegenerative disorders, cerebella disorders, spinocerebella disorders, cognitive disorders, cranial trauma, head trauma, stroke, panic attacks, peripheral neuropathy, glaucoma, migraine, Morbus Parkinson, Morbus Huntington, Morbus Alzheimer, Raynaud's disease, tremblement disorders, compulsive disorders, senile dementia, thymic disorders, tardive dyskinesia, bipolar disorders, medicament-induced movement disorders, dystonia, endotoxemic shock, hemorrhagic shock, hypotension, insomnia, immunologic disorders, sclerotic plaques, vomiting, diarrhea, asthma, memory disorders, pruritus, pain, or for potentiation of the analgesic effect of narcotic and non-narcotic analgesics, or for influencing intestinal transit.

34. A method of modulating cannabinoid-receptors, preferably cannabinoid 1 (CB₁) receptors, of preventing and/or treating disorders of the central nervous system, disorders of the immune system, disorders of the cardiovascular system, disorders of the endocrinous system, disorders of the respiratory system, disorders of the gastrointestinal tract or reproductive disorders, comprising administering to a subject, preferably a human, therapeutically effective amount of at least one substituted pyrazoline compound according to claim 1.

35. A method of treating food intake disorders, preferably bulimia, anorexia, cachexia, obesity, type II diabetes mellitus (non-insuline dependent diabetes mellitus), more preferably obesity, comprising administering to a subject, preferably a human, a therapeutically effective amount of at least one substituted pyrazoline compound according to claim 1.

36. A method of treating psychosis comprising administering to a subject, preferably a human, a therapeutically effective amount of at least one substituted pyrazoline compound according to claim 1.

37. A method of treating alcohol abuse and/or alcohol addiction, nicotine abuse and/or nicotine addiction, drug abuse and/or drug addiction and/or medicament abuse and/or medicament addiction, preferably drug abuse and/or drug addiction and/or nicotine abuse and/or nicotine addiction, comprising administering to a subject, preferably a human, a therapeutically effective amount of at least one substituted pyrazoline compound according to claim 1.

38. A method of treating of cancer, preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of brain cancer, bone cancer, lip cancer, mouth cancer, esophageal cancer, stomach cancer, liver cancer, bladder cancer, pancreas cancer, ovary cancer, cervical cancer, lung cancer, breast cancer, skin cancer, colon cancer, bowel cancer and prostate cancer, more preferably for the prophylaxis and/or treatment of one or more types of cancer selected from the group consisting of colon cancer, bowel cancer and prostate cancer comprising administering to a subject, preferably a human, a therapeutically effective amount of at least one substituted pyrazoline compound according to claim 1.

39. A method of treating one or more disorders selected from the group consisting of bone disorders, preferably osteoporosis (e.g. osteoporosis associated with a genetic predisposition, sex hormone deficiency, or ageing), cancer-associated bone disease or Paget's disease of bone; schizophrenia, anxiety, depression, epilepsy, neurodegenerative disorders, cerebellar disorders, spinocerebellar disorders, cognitive disorders, cranial trauma, head trauma, stroke, panic attacks, peripheral neuropathy, glaucoma, migraine, Morbus Parkinson, Morbus Huntington, Morbus Alzheimer, Raynaud's disease, tremblement disorders, compulsive disorders, senile dementia, thymic disorders, tardive dyskinesia, bipolar disorders, medicament-induced movement disorders, dystonia, endotoxemic shock, hemorrhagic shock, hypotension, insomnia, immunologic disorders, sclerotic plaques, vomiting, diarrhoea, asthma, memory disorders, pruritus, pain, or for potentiation of the analgesic effect of narcotic and non-narcotic analgesics, or for influencing intestinal transit, comprising administering to a subject, preferably a human, a therapeutically effective amount of at least one substituted pyrazoline compound according to claim 1.

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