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(54) Title: REGULATION OF HUMAN P2Y8-LIKE G PROTEIN-COUPLED RECEPTOR

(57) Abstract: Reagents which regulate human P2Y8-like G protein-coupled receptor can play a role in preventing, ameliorating, or correcting dysfunctions or diseases including, but not limited to, infections such as bacterial, fungal, protozoan, and viral infections, particularly those caused by HIV viruses, pain, cancers, anorexia, bulimia, asthma, CNS diseases such as Parkinson's disease, acute heart failure, hypotension, hypertension, urinary retention, osteoporosis, diabetes, angina pectoris, myocardial infarction, ulcers, asthma, inflammation, allergies, multiple sclerosis, benign prostatic hypertrophy, and psychotic and neurological disorders, including anxiety, schizophrenia, manic depression, delirium, dementia, several mental retardation, and dyskinesias, such as Huntington's disease and Tourett's syndrome.



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INTERNATIONAL SEARCH REPORT

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A. CLASSIFICATION OF SUBJECT MATTER

IPC 7 C12N15/12 C12N15/11 C12N15/62 C12N9/00 C07K14/705
C07K16/28 C12Q1/68 G01N33/50 G01N33/53

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 C12N C07K C12Q G01N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

EMBL, EPO-Internal, WPI Data, PAJ, BIOSIS

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	ADRIAN K ET AL.: "Expression of purinergic receptors (ionotropic P2X1-7 and metabotropic P2Y1-11) during myeloid differentiation of HL60 cells" BIOCHIMICA ET BIOPHYSICA ACTA. GENE STRUCTURE AND EXPRESSION, vol. 1492, no. 1, 21 June 2000 (2000-06-21), pages 127-138, XP004275665 ISSN: 0167-4781 abstract page 127, right-hand column, line 15-22 table 1 figure 4F --- -/--	1-71

☒ Further documents are listed in the continuation of box C.

☒ Patent family members are listed in annex.

° Special categories of cited documents :

- *A* document defining the general state of the art which is not considered to be of particular relevance
- *E* earlier document but published on or after the international filing date
- *L* document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)
- *O* document referring to an oral disclosure, use, exhibition or other means
- *P* document published prior to the international filing date but later than the priority date claimed

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- *X* document of particular relevance: the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone
- *Y* document of particular relevance: the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art.
- *G* document member of the same patent family

Date of the actual completion of the international search

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INTERNATIONAL SEARCH REPORT

International Application No

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C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	DATABASE EM_EST 'Online! EMBL; ID AA804531, AC AA804531, 16 February 1998 (1998-02-16) NCI-CGAP: "ns28c04.s1 NCI_CGAP_GCB1 Homo sapiens cDNA clone IMAGE:1184934 3' similar to TR:P79928 P79928 P2Y8 NUCLEOTIDE RECEPTOR. ;, mRNA sequence." XP002195829 Note: 100.0% nt seq identity with SEQ ID NO:1 in 599 nt overlap (1-599:1-599) the whole document ---	1-71
X	WO 00 11170 A (MILLENNIUM PHARM INC) 2 March 2000 (2000-03-02) Note: 98.3% nt seq identity of SEQ ID NO:2 with SEQ ID NO:1 in 597 nt overlap (73-669:1-596), 94.4% aa seq identity of SEQ ID NO:1 with SEQ ID NO:2 in 125 aa overlap (1-125:72-196) the whole document ---	1-71
X	WO 00 20438 A (MCDONALD TERRENCE P ;LIU QINGYUN (US); MERCK & CO INC (US); WANG R) 13 April 2000 (2000-04-13) Note: 97.5% nt seq identity of SEQ ID NO:1 with SEQ ID NO:1 in 404 nt overlap (1-404:194-596), 94.4% aa seq identity of SEQ ID NO:2 with SEQ ID NO:2 in 125 aa overlap (1-125:72-196). the whole document ---	1-71
A	DATABASE SWALL 'Online! EMBL; Entry name P2Y8_XENLA, Acc nr P79928, 1 November 1997 (1997-11-01) BOGDANOV Y D ET AL.: "P2Y PURINOCEPTOR 8 (P2Y8) Xenopus laevis (African clawed frog)" XP002195830 cited in the application the whole document ---	1-71
A	-& BOGDANOV Y D ET AL.: "Early expression of a novel nucleotide receptor in the neural plate of Xenopus embryos" JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 272, no. 19, 9 May 1997 (1997-05-09), pages 12583-12590, XP002195828 abstract figures 1,3 ---	1-71
A	WO 97 19170 A (EUROSCREEN S A ;COMMUNI DIDIER (BE); PIROTTON SABINE (BE); PARMENT) 29 May 1997 (1997-05-29) the whole document ---	

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INTERNATIONAL SEARCH REPORT

International Application No

PCT/EP 01/07204

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category *	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	WILSON S ET AL.: "Orphan G-protein-coupled receptors: the next generation of drug targets?" BRITISH JOURNAL OF PHARMACOLOGY, vol. 125, no. 7, December 1998 (1998-12), pages 1387-1392, XP001010584 ISSN: 0007-1188 the whole document -----	
P,X	WO 01 25280 A (SMITHKLINE BEECHAM CORP) 12 April 2001 (2001-04-12) Note: 100.0% nt seq identity of SEQ ID NO:3 with SEQ ID NO:1 in 599 nt overlap (1-599:1-599), 100.0% aa seq identity of SEQ ID NO: with SEQ ID NO:2 in 128 aa overlap (1-128:72-199). the whole document -----	1-17, 36-59, 62-65

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

Continuation of Box I.2

Present claims 8, 9, 13-17, 33, 52, 53, 55, 58-60, 62, and 68-71 relate to or partly relate to a reagent defined by reference to a desirable characteristic or property, namely that it specifically interacts with or binds to a polynucleotide or a polypeptide of the current invention, or that it modulates the activity of a P2Y8-like GPCR polypeptide or a polynucleotide. The claims cover all reagents having this characteristic or property, whereas the application provides support within the meaning of Article 6 PCT and/or disclosure within the meaning of Article 5 PCT for only a very limited number of such reagents. In the present case, the claims so lack support, and the application so lacks disclosure, that a meaningful search over the whole of the claimed scope is impossible. Independent of the above reasoning, the claims also lack clarity (Article 6 PCT). An attempt is made to define the reagent by reference to a result to be achieved. Again, this lack of clarity in the present case is such as to render a meaningful search over the whole of the claimed scope impossible. Consequently, the search has been carried out for those parts of the claims which appear to be clear, supported and disclosed, namely those parts relating to reagents which are antibodies or antisense molecules.

The applicant's attention is drawn to the fact that claims, or parts of claims, relating to inventions in respect of which no international search report has been established need not be the subject of an international preliminary examination (Rule 66.1(e) PCT). The applicant is advised that the EPO policy when acting as an International Preliminary Examining Authority is normally not to carry out a preliminary examination on matter which has not been searched. This is the case irrespective of whether or not the claims are amended following receipt of the search report or during any Chapter II procedure.

INTERNATIONAL SEARCH REPORT

Information on patent family members

International Application No

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Patent document cited in search report		Publication date	Patent family member(s)	Publication date
WO 0011170	A	02-03-2000	AU 5578699 A EP 1104465 A1 WO 0011170 A1	14-03-2000 06-06-2001 02-03-2000
WO 0020438	A	13-04-2000	EP 1124844 A1 WO 0020438 A1	22-08-2001 13-04-2000
WO 9719170	A	29-05-1997	WO 9719170 A1 CA 2235627 A1 EP 0862628 A1 JP 2000503526 T	29-05-1997 29-05-1997 09-09-1998 28-03-2000
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