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(54) Title: IMIDAZOLYL PROGESTERONE ANTAGONISTS

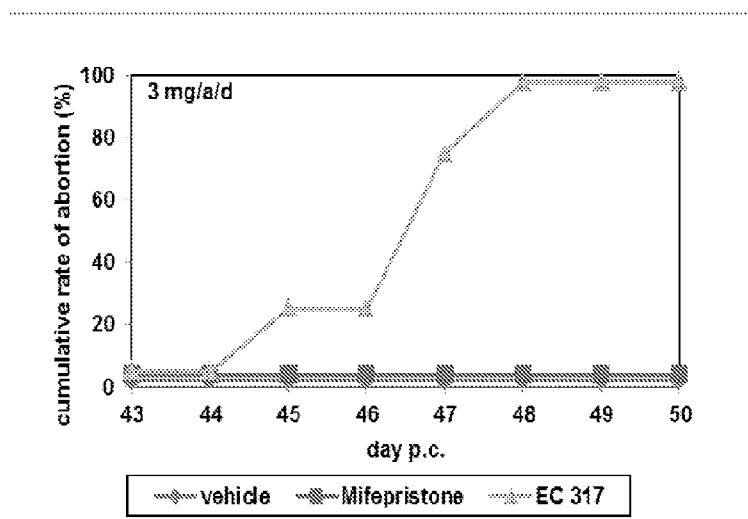


FIG. 1

(57) Abstract: Described herein are imidazolyl compounds that exhibit progesterone antagonism without any sign of partial agonist-activity. Such compounds have application in fertility control and in the treatment of hormone dependent breast cancer. The present invention also relates to processes of preparation and the use in therapy of such novel compounds.

INTERNATIONAL SEARCH REPORT

International application No.

PCT/US 14/41002

A. CLASSIFICATION OF SUBJECT MATTER IPC(8) - A61K 31/58; C07J 43/00; A61P 35/00 (2015.01) CPC - C07J51/00; C07J1/0081; C07J43/003 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(8): A61K 31/58; C07J 43/00; A61P 35/00 (2015.01) CPC: C07J51/00; C07J1/0081; C07J43/003 Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched USPC: 514/173; 552/553; 514/176; 540/107; 514/179; 552/5		
Electronic data base consulted during the international search (name of data base and, where practicable, search terms used) PatBase, Google Scholar, PubWEST progesterone, antagonist, imidazole, phenylimidazole, steroid, estra-4,9-diene-3-one, 11beta-(4-(1-imidazolyl)phenyl), breast cancer		
C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 2013/016725 A1 (NICKISCH et al.) 31 January 2013 (31.01.2013) para [0001], [0033]-[0047], pg 22; pg 31; pg 46; pg 50-51, Table 1	1-18
Y	US 6,020,328 A (COOK et al.) 01 February 2000 (01.02.2000) col 3, ln 66 to col 4, ln 8; Table 1; col 4, ln 66 to col 5, ln 25	1-18
Y	US 4,871,724 A (GROEN et al.) 03 October 1989 (03.10.1989) col 1, ln 5-50; col 2, ln 38-54; col 8, ln 66-67	14-15, 18/(14-15)
Y	US 2010/0273759 A1 (NICKISCH et al.) 28 October 2010 (28.10.2010) para [0069], [0113]	16, 18/16
A	US 5,854,235 A (HAMERSMA et al.) 29 December 1998 (29.12.1998) Entire Document	1-18
A	US 5,273,971 A (SCHOLZ et al.) 28 December 1993 (28.12.1993) col 1, ln 5-39; col 3, ln 52 to col 5, ln 32	1-18
<input type="checkbox"/> Further documents are listed in the continuation of Box C. <input type="checkbox"/>		
* 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 application or patent 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 "T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention "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 "&" document member of the same patent family		
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Name and mailing address of the ISA/US Mail Stop PCT, Attn: ISA/US, Commissioner for Patents P.O. Box 1450, Alexandria, Virginia 22313-1450 Facsimile No. 571-273-3201		Authorized officer: Lee W. Young PCT Helpdesk: 571-272-4300 PCT OSP: 571-272-7774

INTERNATIONAL SEARCH REPORT

International application No.

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Box No. IV Text of the abstract (Continuation of item 5 of the first sheet)

Described herein are imidazolyl compounds that exhibit progesterone antagonism without any sign of partial agonistic activity. Such compounds have application in fertility control and in the treatment of hormone dependent breast cancer. The present invention also relates to processes of preparation and the use in therapy of such novel compounds.