(54) Title: POSITIVE ALLOSTERIC MODULATORS OF MGLUR2

(57) Abstract: The present invention is directed to 5-substituted 1,3-dihydro-2H-imidazo[4,5-b]pyridine-2-one derivatives which are positive allosteric modulators of the mGluR2 receptor, useful in the treatment or prevention of neurological and psychiatric disorders associated with glutamate dysfunction and diseases in which the mGluR2 receptor is involved. The invention is also directed to pharmaceutical compositions comprising these compounds and the use of these compounds and compositions in the prevention or treatment of such diseases in which metabotropic glutamate receptors are involved, such as schizophrenia.
INTERNATIONAL SEARCH REPORT

A. CLASSIFICATION OF SUBJECT MATTER

IPC(8) - A01 N 43/50; A61 K 31/41 5 (201 1.01 )

USPC - 514/396; 514/397; 514/398

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)

USPC - 514/396; 514/397; 514/398

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

USPC - 514/235.8; 514/400 (see search terms below)

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

USPTO/WEST - POGUSPT/USDOC/JPAB/JPA2 keywords: pyridinone, derivatives, modulators, mGluR2, receptors, treatment, neurological, psychiatric, disorders, schizophrenia, glutamate dysfunction, administering, mammal, effective amount, pharmaceutical compositions, mGluR2 receptor, molecular modeling, mGluR2 agonists, binding site, design.INTERNET search

C. DOCUMENTS CONSIDERED TO BE RELEVANT

<table>
<thead>
<tr>
<th>Category</th>
<th>Citation of document, with indication, where appropriate, of the relevant passages</th>
<th>Relevant to claim No.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Y</td>
<td>US 2007/0213323  A 1 (IMOGAI et al.) 13 September 2007 (13.09.2007) para [0017], [0418], [0427], [0430], [0439],[0441], [0443], [0445]</td>
<td>1-20</td>
</tr>
<tr>
<td>Y</td>
<td>JULLIAN et al. Agonist Selectivity of mGluRI and mGluR2 Metabotropic Receptors: A Different Environment but Similar Recognition of an Extended Glutamate Conformation. J Med Chem, 1999, Vol 42(9), pp 1546-1555; pg 1546-1553</td>
<td>1-20</td>
</tr>
</tbody>
</table>

Further documents are listed in the continuation of Box C.

Date of the actual completion of the international search

04 November 2011 (04. 11.2011)

Date of mailing of the international search report

22 NOV 2011

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 Sophia: 571-272-7774