Title: GPR54 G PROTEIN-COUPLED RECEPTOR

Abstract: Disclosed herein are newly identified polynucleotides, polypeptides encoded by such polynucleotides, the use of such polynucleotides and polypeptides, as well as the production of such polynucleotides and polypeptides. More particularly, this invention relates to newly identified polynucleotides, polypeptides encoded by such polynucleotides, the use of such polynucleotides and polypeptides, as well as the production of such polypeptides by recombinant techniques. More particularly, the polynucleotides and polypeptides of the present invention relate to a G-Protein coupled receptor protein, hereinafter referred to as Human GPR54 (GPR54), which happens to be an orphan receptor protein. The invention also relates to inhibiting or activating the action of such polynucleotides and polypeptides.
# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/US01/48333

## A. CLASSIFICATION OF SUBJECT MATTER

<table>
<thead>
<tr>
<th>IPC(7)</th>
<th>US CL</th>
</tr>
</thead>
<tbody>
<tr>
<td>A61K 38/00, 39/00, 48/00; C07H 21/02, 21/04; C07K 14/00, 14/47; G01N 33/53</td>
<td>514/2, 44; 530/350, 300; 424/130.1, 145.1, 192.1; 435/7.1, 69.1, 325; 536/23.1</td>
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</table>

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)

U.S. : 514/2, 44; 530/350, 300; 424/130.1, 145.1, 192.1; 435/7.1, 69.1, 325; 536/23.1

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 practicable, search terms used)

Please See Continuation Sheet

## 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>
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<tbody>
<tr>
<td>A</td>
<td>WO 01/75104 A1 (TAKADA CHEMICAL INDUSTRIES, LTD.) 11 October 2001 (11.10.01), see claim 21, example 3 and attached sequence comparison.</td>
<td>38-46</td>
</tr>
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<td>X</td>
<td>WO 00/24890 A1 (TAKADA CHEMICAL INDUSTRIES, LTD.) 04 May 2000 (04.05.00), see claims 2 and 6, and attached sequence comparison.</td>
<td>1, 4-6, 8-9, 26, 33-37</td>
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<td>X</td>
<td>WO 00/50563 A2 (MERCK &amp; CO., INC.) 31 August 2000 (31.08.00), see Claims 2 and 6, Fig 1A-B, and attached sequence comparison.</td>
<td>1, 4-5, 8, 9, 26, 34-37</td>
</tr>
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</table>

Further documents are listed in the continuation of Box C. See patent family annex.

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  - **E** earlier application or patent published on or after the international filing date  
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  - **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  
  - **&** document member of the same patent family

Date of the actual completion of the international search: 22 March 2003 (22.03.2003)

Date of mailing of the international search report: 06 May 2003

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