Title: METHOD AND COMPOSITIONS FOR IDENTIFYING ANTI-HIV THERAPEUTIC COMPOUNDS

Abstract: Methods are provided for identifying anti-HIV therapeutic compounds substituted with carboxyl ester or phosphate ester groups. Libraries of such compounds are screened optionally using the novel enzyme GS-7340 Ester Hydrolase. Compositions and methods relating to GS-7340 Ester Hydrolase also are provided.
INTERNATIONAL SEARCH REPORT

International application No.
PCT/US03/12943

A. CLASSIFICATION OF SUBJECT MATTER
IPC(7) : C12Q 1/34
US CL : 435/4-6, 7.1, 18
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. : 435/4-6, 7.1, 18

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)

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>
</table>

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

* Special category 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 published on or after the international filing date
  *L* document which may throw doubt 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

**I** 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

Date of the actual completion of the international search
26 September 2004 (26.09.2004)

Date of mailing of the international search report
13 DEC 2005

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Form PCT/ISA/210 (second sheet) (July 1998)
INTERNATIONAL SEARCH REPORT

Box I Observations where certain claims were found unsearable (Continuation of Item 1 of first sheet)

This international report has not been established in respect of certain claims under Article 17(2)(a) for the following reasons:

1. ☐ Claim Nos.:
   because they relate to subject matter not required to be searched by this Authority, namely:

2. ☒ Claim Nos.: 56, 57 and 63-70
   because they relate to parts of the international application that do not comply with the prescribed requirements to such an extent that no meaningful international search can be carried out, specifically:
   Please See Continuation Sheet

3. ☒ Claim Nos.: 43-45
   because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box II Observations where unity of invention is lacking (Continuation of Item 2 of first sheet)

This International Searching Authority found multiple inventions in this international application, as follows:

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers all searchable claims.

2. ☐ As all searchable claims could be searched without effort justifying an additional fee, this Authority did not invite payment of any additional fee.

3. ☐ As only some of the required additional search fees were timely paid by the applicant, this international search report covers only those claims for which fees were paid, specifically claims Nos.:

4. ☐ No required additional search fees were timely paid by the applicant. Consequently, this international search report is restricted to the invention first mentioned in the claims; it is covered by claims Nos.:

Remark on Protest ☐ The additional search fees were accompanied by the applicant's protest.
☐ No protest accompanied the payment of additional search fees.

Form PCT/ISA/210 (continuation of first sheet (1)) (July 1998)
Continuation of Box 1 Reason 2:

Claims 56-57 and 63-70 were not searched because no meaningful search could be carried out for the following reasons:

For claims 56-57, no meaningful search could be carried out due to a lack of congruency between the preamble of the claims and the active method steps in the claims. The preamble of the claims state that the claimed invention is directed at a method of obtaining a substantially pure organic molecule; however, it is unclear how the practice of method step, with or without the optional step of contacting the organic molecule with another molecule to produce a composition, renders a substantially pure organic molecule.

For claims 63-70, no meaningful search could be carried out due to a lack of antecedent basis for "the method". Claims 63-70 recite "the method", directing to claim 61; however, claim 61 is not a method claim. Claim 61 is a composition claim.

Claims 43-45 were not searched because they are improperly multiply dependent as covered by the second and third sentences of PCT rule 6.4(a).