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Previous Correction:

see Notice of 14 February 2008

(54) Title: COMBINATORIAL LIBRARY FOR PROTEOMIC INVESTIGATIONS

(57) Abstract: The present invention relates to solid-phase combinatorial peptide libraries synthesized on chromatography beads and their use to prepare samples for proteomic investigations.



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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2007/013872

A. CLASSIFICATION OF SUBJECT MATTER

INV. C07K1/04 C40B30/04 G01N33/53 G01N33/68

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)

C07K G01N C40B

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)

EPO-Internal, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
P,X	LATHROP ET AL.: "The bead blot: a method for identifying ligand-protein and protein-protein interactions using combinatorial libraries of peptide ligands" ANAL BIOCHEM, vol. 361, 2007, pages 65-75, XP005733807 the whole document	1-24
X	US 2003/211471 A1 (HAMMOND DAVID J [US] ET AL) 13 November 2003 (2003-11-13)	1-4,7-24
Y	the whole document	5,6
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☒ Further documents are listed in the continuation of Box C.

☒ See patent family 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

"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

Date of the actual completion of the international search

17 December 2007

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Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/013872

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	ARPAD FURKA ET AL: "GENERAL METHOD FOR RAPID SYNTHESIS OF MULTICOMPONENT PEPTIDE MIXTURES" INTERNATIONAL JOURNAL OF PEPTIDE AND PROTEIN RESEARCH, MUNKSGAARD, COPENHAGEN, DK, vol. 37, no. 6, 1 June 1991 (1991-06-01), pages 487-493, XP000206365 ISSN: 0367-8377 the whole document	1-24
Y	LAM K S ET AL: "A NEW TYPE OF SYNTHETIC PEPTIDE LIBRARY FOR IDENTIFYING LIGAND-BINDING ACTIVITY" NATURE, NATURE PUBLISHING GROUP, LONDON, GB, vol. 354, no. 6348, 7 November 1991 (1991-11-07), pages 82-84, XP000371736 ISSN: 0028-0836 the whole document	1-24
X	YANG H ET AL: "Hexamer peptide affinity resins that bind the Fc region of human immunoglobulin G." THE JOURNAL OF PEPTIDE RESEARCH : OFFICIAL JOURNAL OF THE AMERICAN PEPTIDE SOCIETY DEC 2005, vol. 66 Suppl 1, December 2005 (2005-12), pages 120-137, XP002456170 ISSN: 1397-002X the whole document	1-4,7-24
Y		5,6
A	LATHROP JULIA TAIT ET AL: "Rarity gives a charm: evaluation of trace proteins in plasma and serum." EXPERT REVIEW OF PROTEOMICS JUN 2005, vol. 2, no. 3, June 2005 (2005-06), pages 393-406, XP009091300 ISSN: 1744-8387	
A	LATHROP JULIA TAIT ET AL: "Therapeutic potential of the plasma proteome." CURRENT OPINION IN MOLECULAR THERAPEUTICS JUN 2003, vol. 5, no. 3, June 2003 (2003-06), pages 250-257, XP009091265 ISSN: 1464-8431	
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INTERNATIONAL SEARCH REPORT

International application No

PCT/US2007/013872

C(Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
T	SARKAR ET AL: "Functional identification of novel activities: Activity-based selection of proteins from complete proteomes" ANALYTICAL BIOCHEMISTRY, ACADEMIC PRESS, SAN DIEGO, CA, US, vol. 365, no. 1, 25 April 2007 (2007-04-25), pages 91-102, XP022065120 ISSN: 0003-2697 the whole document -----	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2007/013872

Box No. II Observations where certain claims were found unsearchable (Continuation of item 2 of first sheet)

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

1. ☐ Claims Nos.:
because they relate to subject matter not required to be searched by this Authority, namely:
2. ☐ Claims Nos.:
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:
3. ☐ Claims Nos.:
because they are dependent claims and are not drafted in accordance with the second and third sentences of Rule 6.4(a).

Box No. III Observations where unity of invention is lacking (Continuation of item 3 of first sheet)

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

see additional sheet

1. ☐ As all required additional search fees were timely paid by the applicant, this international search report covers allsearchable claims.
2. ☐ As all searchable claims could be searched without effort justifying an additional fees, this Authority did not invite payment of additional fees.
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.:

1-24

Remark on Protest

- ☐ The additional search fees were accompanied by the applicant's protest and, where applicable, the payment of a protest fee.
- ☐ The additional search fees were accompanied by the applicant's protest but the applicable protest fee was not paid within the time limit specified in the invitation.
- ☐ No protest accompanied the payment of additional search fees.

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

This International Searching Authority found multiple (groups of) inventions in this international application, as follows:

Invention 1: claims 1-24

solid-phase combinatorial peptide library comprising an inert support, consisting of at least 1000 different peptide ligands

Technical problem: provision of a combinatorial peptide library of at least 1000 peptide ligands, comprising an inert support

Invention 2: claims 25-43

Method for preparing a solid-phase combinatorial library, comprising (1) coupling amino groups to inert supports, (2) attaching spacers to said amino groups, and (3) synthesizing peptide ligands on said spacers

Technical problem: provision of a method for preparing a solid-phase combinatorial peptide library

Information on patent family members

PCT/US2007/013872

Patent document
cited in search report

Publication
date

Patent family member(s)

Publication
date

US 2003211471	A1	13-11-2003	NONE
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