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For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.

(54) Title: MEDIATORS OF REVERSE CHOLESTEROL TRANSPORT FOR THE TREATMENT OF HYPERCHOLESTEROLEMIA

(57) Abstract: The present invention provides compositions adapted to enhance reverse cholesterol transport in mammals. The compositions are suitable for oral delivery and useful in the treatment and/or prevention of hypercholesterolemia, atherosclerosis and associated cardiovascular diseases.

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INTERNATIONAL SEARCH REPORT

International application No
PCT/US2004/012445

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 C07K14/775 C07K5/065 C07K5/087 C07K5/09 C07K5/093
C07K5/11 C07K5/107 C07K5/113 C07K7/04 A61K38/17
A61K38/05 A61K38/06 A61K38/07 A61K38/08 G01N33/92

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 7 C07K A61K G01N

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, CHEM ABS Data, Sequence Search, WPI Data, BIOSIS, EMBASE, PAJ

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X Y	WO 99/16408 A (BUTTNER KLAUS ; CORNUT ISABELLE (DE); METZ GUNTHER (DE); SEKUL RENATE) 8 April 1999 (1999-04-08) page 51; page 1 - page 7; claims 1,15,37,40-51; sequences 75,94,109,213	1-9, 22-24 11,13
X Y	WO 02/38609 A (GRAVERSEN JONAS ; MOESTRUP SOEREN (DK); PROTEOPHARMA APS (DK)) 16 May 2002 (2002-05-16) claims 1,17,94,102-111; figure 2a	1-9, 22-24 11,13
X	WO 02/083917 A (AGENSYS INC) 24 October 2002 (2002-10-24) page 28; claims 1,3,13; tables V,VII-IX,XI-XIII,XV,XVII; sequences 2,36,49,60,82,84,91,125,135,137,219,1787	1-9,12, 22-24

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[X] Further documents are listed in the continuation of box C.

[X] Patent family members are listed in 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)

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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

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Date of the actual completion of the international search	Date of mailing of the international search report
6 October 2004	26. 04. 2005

Name and mailing address of the ISA	Authorized officer
European Patent Office, P.B. 5818 Patentlaan 2 NL - 2280 HV Rijswijk Tel. (+31-70) 340-2040, Tx. 31 651 epo nl, Fax: (+31-70) 340-3016	Schmidt, Harald

INTERNATIONAL SEARCH REPORT

International application No
PCT/US2004/012445

C.(Continuation) DOCUMENTS CONSIDERED TO BE RELEVANT

Category °	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
A	BANKA CL ET AL.: "Localization of an Apolipoprotein A-I Epitope Critical for Activation of Lecithin-Cholesterol Acyltransferase" THE JOURNAL OF BIOLOGICAL CHEMISTRY, vol. 266, no. 35, 15 December 1991 (1991-12-15), pages 23886-23892, XP002299434 abstract, Figure 6	
A	EP 0 162 414 A (RESEARCH CORP) 27 November 1985 (1985-11-27) claims 1-10	

INTERNATIONAL SEARCH REPORT

International application No.
PCT/US2004/012445

Box 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 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 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.:

13 (completely) and 1-9,11,12,22-24 (all partially)

Remark on Protest

☐ The additional search fees were accompanied by the applicant's protest.

☐ 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:

1. claims: 13 (completely) and 1-9,11,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 1-3,9-12,16,22-26,29,31,32,44,45,55,71,73-80,87 and compositions comprising them

1.1. claims: 13 (completely) and 1-9,11,12 (partially)

peptide mediators comprising SEQ ID NO: 1 and compositions comprising them

1.2. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 2 and compositions comprising them

1.3. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 3 and compositions comprising them

1.4. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 9 and compositions comprising them

1.5. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 10 and compositions comprising them

1.6. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 11 and compositions comprising them

1.7. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 12 and compositions comprising them

1.8. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 16 and compositions comprising them

1.9. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO:22 and compositions comprising them

1.10. claims: 1-9,22-24 (all partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

peptide mediators comprising SEQ ID NO: 23 and compositions comprising them

1.11. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 24 and compositions comprising them

1.12. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 25 and compositions comprising them

1.13. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 26 and compositions comprising them

1.14. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 29 and compositions comprising them

1.15. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 31 and compositions comprising them

1.16. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 32 and compositions comprising them

1.17. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 44 and compositions comprising them

1.18. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 45 and compositions comprising them

1.19. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 55 and compositions comprising them

1.20. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 71 and compositions comprising them

1.21. claims: 1-9,12,22-24 (all partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

peptide mediators comprising SEQ ID NO: 73 and compositions comprising them

1.22. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 74 and compositions comprising them

1.23. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 75 and compositions comprising them

1.24. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 76 and compositions comprising them

1.25. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 77 and compositions comprising them

1.26. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 78 and compositions comprising them

1.27. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 79 and compositions comprising them

1.28. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 80 and compositions comprising them

1.29. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO: 87 and compositions comprising them

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2. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 4,5,27,28,35-42,51,53,54,59-61,64 and compositions comprising them

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3. claims: 1-9,22-24 (all partially)

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

peptide mediators comprising SEQ ID NOs 6-8,15 and compositions comprising them

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4. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 13,14 and compositions comprising them

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5. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 17,21,108 and compositions comprising them

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6. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 18,110 and compositions comprising them

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7. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO 19 and compositions comprising them

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8. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 20,113 and compositions comprising them

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9. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 30,43,46-50,52,62,63, and compositions comprising them

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10. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO 33 and compositions comprising them

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11. claims: 15,17-20 (completely) and 1-10,12,22-24 (partially)

peptide mediators comprising SEQ ID NOs 34,83,89,90-94,96-101,104-106,120,122,125,126,128,137, 141,145-147,150, 176 and compounds nos. 1,3-9,11-13,16,18,20-22,31,35,39-41,83-86,93,94 and compositions comprising them

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

12. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 56-58 and compositions comprising them

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13. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 65-67,72 and compositions comprising them

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14. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO 68 and compositions comprising them

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15. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 69,70, and compositions comprising them

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16. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 82,84,85 and compositions comprising them

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17. claims: 16,21 (completely) and 1-10,22-24 (partially)

peptide mediators comprising SEQ ID NOs 86,102,103,118,121,123,124,136,140,151 and compounds nos. 2,10,14,17,19,30,34,81,82 and compositions comprising them

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18. claims: 1-9,12,22-24 (all partially)

peptide mediators comprising SEQ ID NO 88 and compositions comprising them

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19. claims: 1-10,12,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 95,119,153,165,172,174,175 and compounds nos. 15,42, and compositions comprising them

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20. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 107 and compositions comprising them

FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

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21. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 108 and compositions comprising them

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22. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 109 and compositions comprising them

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23. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 111 and compositions comprising them

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24. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 112 and compositions comprising them

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25. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 114 and compositions comprising them

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26. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 115 and compositions comprising them

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27. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 116 and compositions comprising them

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28. claims: 1-9,11,22-24 (all partially)

peptide mediators comprising SEQ ID NO 117 and compositions comprising them

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29. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO 127 and compositions comprising them

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FURTHER INFORMATION CONTINUED FROM PCT/ISA/ 210

30. claims: 1-10,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 129-134 and compounds nos. 23-28 and compositions comprising them

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31. claims: 1-10,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 135,138,139,142,143,149,152 and compounds nos. 29,32,33,36,37, and compositions comprising them

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32. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 144,163 and compositions comprising them

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33. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 154,159,162,164,166,168-171,173 and compositions comprising them

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34. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NOs 155-158,160,161 and compositions comprising them

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35. claims: 1-9,22-24 (all partially)

peptide mediators comprising SEQ ID NO 167 and compositions comprising them

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36. claims: 1-9,12,22-24 (all partially)

compounds nos. 87,88,91,92 and compositions comprising them

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37. claims: 1-9,12,22-24 (all partially)

compound nos. 89,90 and compositions comprising them

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38. claims: 1-9,12,22-24 (all partially)

compound nos. 95,96 and compositions comprising them

INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No
PCT/US2004/012445

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