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- with sequence listing part of description (Rule 5.2(a))

- (88) **Date of publication of the international search report:**
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(54) **Title:** POLYPEPTIDES

(57) **Abstract:** The invention relates to polypeptides comprising an amino acid sequence which is an analogue of pramlintide, pharmaceutical compositions comprising these polypeptides, and these polypeptides for use as medicaments.



WO 2012/168430 A3

INTERNATIONAL SEARCH REPORT

International application No
PCT/EP2012/060897

A. CLASSIFICATION OF SUBJECT MATTER
INV. C07K14/575 A61K47/48
ADD.

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 A61K

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)

EPO-Internal, BIOSIS, Sequence Search, EMBASE, WPI Data

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	WO 2010/046357 A1 (NOVO NORDISK AS [DK]; SCHAEFFER LAUGE [DK]; KRUSE THOMAS [DK]; LAU JES) 29 April 2010 (2010-04-29) page 2, line 19 - page 3, line 8 page 15, lines 2,3 page 16, lines 24-26 page 29, lines 15-20 example 1 claims 1,2,7,8,9-14 -----	1-3,5-15



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 application or patent 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

5 December 2012

Date of mailing of the international search report

12/12/2012

Name and mailing address of the ISA/

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INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No

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Patent document cited in search report	Publication date	Patent family member(s)	Publication date
WO 2010046357 A1	29-04-2010	CN 102197049 A	21-09-2011
		EP 2340261 A1	06-07-2011
		JP 2012506402 A	15-03-2012
		TW 201018479 A	16-05-2010
		US 2011105394 A1	05-05-2011
		WO 2010046357 A1	29-04-2010

INTERNATIONAL SEARCH REPORT

International application No.

PCT/EP2012/060897

Box No. I Nucleotide and/or amino acid sequence(s) (Continuation of item 1.c of the first sheet)

1. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, the international search was carried out on the basis of:
 - a. (means)
☐ on paper
☒ in electronic form
 - b. (time)
☐ in the international application as filed
☒ together with the international application in electronic form
☐ subsequently to this Authority for the purpose of search
2. ☐ In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
3. Additional comments:

INTERNATIONAL SEARCH REPORT

International application No.
PCT/EP2012/060897

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 all searchable 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.:
1-3(completely); 5-15(partially)
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 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:

1. claims: 1, 2, 6-10, 12-15(all partially)

An amylin analogue having Glu14 and His17; said analogue for use as a medicament; the use of said analogue for treating or preventing specific diseases; a pharmaceutical composition comprising said analogue; and, a process for preparing a pharmaceutical composition comprising said analogue.

2. claims: 1, 2, 5-15(all partially)

Idem as invention 1 but wherein said amylin analogue has the substitutions Glu14 and Arg17.

3-4. claims: 1, 2, 6-10, 12-15(all partially)

Idem as invention 1 but wherein said analogues have the substitutions Glu14 and Lys17 and Glu14 and Val17, respectively.

5. claims: 3(completely); 1, 5-15(partially)

An amylin analogue having Glu14 and either Pro37 or Tyr37; said analogue for use as a medicament; the use of said analogue for treating or preventing specific diseases; a pharmaceutical composition comprising said analogue; and, a process for preparing a pharmaceutical composition comprising said analogue.

6. claims: 4(completely); 1, 6-10, 12-15(partially)

An amylin analogue having Glu14 and either His35, Arg35, Lys35, Asp35, Glu35, Asn35 or Gln35; said analogue for use as a medicament; the use of said analogue for treating or preventing specific diseases; a pharmaceutical composition comprising said analogue; and, a process for preparing a pharmaceutical composition comprising said analogue.
