

eolf-seql
SEQUENCE LISTING

<110> SANOFI

<120> New Exendin-4 Derivatives as selective peptidic dual GLP-1 / Glucagon
Receptor Agonists

<130> DE2015/082 WO PCT / 60324P WO

<150> EP 15 306 141.1

<151> 2015-07-10

<160> 20

<170> PatentIn version 3.5

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<212> PRT

<213> Homo sapiens

<220>

<221> MOD_RES

<222> (30)..(30)

<223> Amidated C-terminus

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His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
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Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Lys	Gly	Arg
			20					25					30

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<223> liraglutide

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<221> MOD_RES

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<222> (20)..(20)

<223> Lys derivatized at N6 with
(S)-4-carboxy-4-hexadecanoylamino-butyryl

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His	Ala	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Val	Ser	Ser	Tyr	Leu	Glu	Gly
1				5					10					15	

Gln	Ala	Ala	Lys	Glu	Phe	Ile	Ala	Trp	Leu	Val	Arg	Gly	Arg	Gly
			20					25					30	

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<213> Homo sapiens

<400> 3

His	Ser	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Tyr	Ser	Lys	Tyr	Leu	Asp	Ser
1				5					10					15	

Arg	Arg	Ala	Gln	Asp	Phe	Val	Gln	Trp	Leu	Met	Asn	Thr
			20					25				

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<212> PRT

<213> Heloderma suspectum

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<222> (39)..(39)

<223> Amidated C-terminus

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His	Gly	Glu	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Met	Glu	Glu
1				5					10					15	

Glu	Ala	Val	Arg	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Asn	Gly	Gly	Pro	Ser
			20					25					30		

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Ser Gly Ala Pro Pro Pro Ser
35

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<400> 5

Tyr Ala Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Ala Met Asp Lys
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Ile His Gln Gln Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Gly Lys
20 25 30

Lys Asn Asp Trp Lys His Asn Ile Thr Gln
35 40

<210> 6
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<213> Artificial Sequence

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<220>
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<223> Aib

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<222> (14)..(14)
<223> Lys derivatized at N6 with
(S)-4-carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
butyryl

<220>
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<223> D-Ala

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<222> (34)..(34)
<223> Aib

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<223> Amidated C-terminus

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His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ala	Xaa	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
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<222> (14)..(14)
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 (S)-4-carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
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 <223> Aib

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 <222> (34)..(34)
 <223> Aib

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 <222> (39)..(39)
 <223> Amidated C-terminus

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His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ala	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
			35			

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 <223> Aib

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 <222> (14)..(14)
 <223> Lys derivatized at N6 with
 (S)-4-carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
 butyryl

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 <222> (27)..(27)
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His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Lys	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
			35			

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<223> Aib

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<222> (14)..(14)

<223> Lys derivatized at N6 with
(S)-4-carboxy-4-octadecanoylamino-butyryl

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<222> (34)..(34)

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<221> MOD_RES

<222> (39)..(39)

<223> Amidated C-terminus

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His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ala	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
			35			

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(S)-4-carboxy-4-octadecanoylamino-butryl

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His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Lys	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
			35			

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(S)-4-carboxy-4-hexadecanoylamino-butryl

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His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ala	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
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(2-{2-[2-(2-{2-[(4S)-4-Carboxy-4-hexadecanoylamino-butyrylamino]-
ethoxy}-ethoxy)-acetylamino]-ethoxy}-ethoxy)-acetyl

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<222> (27)..(27)
<223> Aib

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<222> (34)..(34)
<223> Aib

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<222> (39)..(39)
<223> Amidated C-terminus

<400> 12

His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ala	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
		35				

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(2-{2-[2-(2-{2-[(4S)-4-Carboxy-4-octadecanoylamino-butyrylamino]-ethoxy}-ethoxy)-acetylamino]-ethoxy}-ethoxy)-acetyl

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<223> Amidated C-terminus

<400> 13

His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ala	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
			35			

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<222> (14)..(14)

<223> Lys derivatized at N6 with
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mino}-ethoxy)-ethoxy]-acetylamino}-ethoxy)-ethoxy]-acetyl

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<222> (34)..(34)

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<222> (39)..(39)

<223> Amidated C-terminus

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His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ala	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
			35			

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<223> Aib

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<222> (14)..(14)

<223> Lys derivatized at N6 with
(S)-4-Carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
butyryl

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<222> (34)..(34)

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<222> (39)..(39)

<223> Amidated C-terminus

<400> 15

His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Xaa	Ser	Gly	Gly	Pro	Pro
			20					25					30		

Ser	Xaa	Lys	Pro	Pro	Pro	Lys
			35			

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<211> 39
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 <213> Artificial Sequence

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 <223> Aib

<220>
 <221> MOD_RES
 <222> (14)..(14)
 <223> Lys derivatized at N6 with
 (S)-4-Carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
 butyryl

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 <222> (29)..(29)
 <223> D-Ala

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 <222> (34)..(34)
 <223> Aib

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 <223> Amidated C-terminus

<400> 16

His Xaa Gln Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Lys Asp Glu
 1 5 10 15

Gln Arg Ala Lys Leu Phe Ile Glu Trp Leu Xaa Lys Xaa Gly Pro Pro
 20 25 30

eolf-seql

Ser Xaa Lys Pro Pro Pro Lys
35

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(S)-4-Carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
butyryl

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His Xaa Gln Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Lys Asp Glu
1 5 10 15

Gln Arg Ala Lys Leu Phe Ile Glu Trp Leu Xaa Ser Xaa Gly Pro Pro
20 25 30

Ser Xaa Lys Pro Pro Pro Lys
35

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(S)-4-Carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
butyryl

<220>
<221> MOD_RES
<222> (39)..(39)
<223> Amidated C-terminus

<400> 18

His Xaa Gln Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Lys Asp Glu
1 5 10 15

Gln Arg Ala Lys Leu Phe Ile Glu Trp Leu Lys Ala Gly Gly Pro Ser
20 25 30

eolf-seql

Ser Gly Ala Pro Pro Pro Ser
35

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(S)-4-Carboxy-4-((S)-4-carboxy-4-hexadecanoylamino-butyrylamino)-
butyryl

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<223> D-Ala

<220>
<221> MOD_RES
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<400> 19

His Xaa Gln Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Lys Asp Glu
1 5 10 15

Gln Arg Ala Lys Leu Phe Ile Glu Trp Leu Lys Ala Xaa Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

eolf-seql

<210> 20
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(S)-4-carboxy-4-octadecanoylamino-butryl

<220>
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<400> 20

His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Leu	Ser	Lys	Gln	Lys	Asp	Glu
1				5					10					15	

Gln	Arg	Ala	Lys	Leu	Phe	Ile	Glu	Trp	Leu	Lys	Ala	Gly	Gly	Pro	Ser
			20					25					30		

Ser	Gly	Ala	Pro	Pro	Pro	Ser
			35			