

Listado de secuencias
SEQUENCE LISTING

<110> NOVARTIS AG

<120> NOVEL FATTY ACIDS AND THEIR USE IN CONJUGATION TO BIOMOLECULES

<130> PAT056274

<140>

<141>

<150> PCT/US2015/036328

<151> 2015-06-18

<150> 62/107,016

<151> 2015-01-23

<150> 62/082,327

<151> 2014-11-20

<150> 62/015,862

<151> 2014-06-23

<160> 36

<170> PatentIn version 3.5

<210> 1

<211> 119

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

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Met His His His His His Ala Arg Asn Gly Asp His Cys Pro Leu
1 5 10 15

Gly Pro Gly Arg Cys Cys Arg Leu His Thr Val Arg Ala Ser Leu Glu
20 25 30

Asp Leu Gly Trp Ala Asp Trp Val Leu Ser Pro Arg Glu Val Gln Val
35 40 45

Thr Met Cys Ile Gly Ala Cys Pro Ser Gln Phe Arg Ala Ala Asn Met
50 55 60

His Ala Gln Ile Lys Thr Ser Leu His Arg Leu Lys Pro Asp Thr Val
65 70 75 80

Pro Ala Pro Cys Cys Val Pro Ala Ser Tyr Asn Pro Met Val Leu Ile
85 90 95

Gln Lys Thr Asp Thr Gly Val Ser Leu Gln Thr Tyr Asp Asp Leu Leu
100 105 110

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Ala Lys Asp Cys His Cys Ile
115

<210> 2

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

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Met His His His His His His Met Ala Arg Asn Gly Asp His Cys Pro
1 5 10 15

Leu Gly Pro Gly Arg Cys Cys Arg Leu His Thr Val Arg Ala Ser Leu
20 25 30

Glu Asp Leu Gly Trp Ala Asp Trp Val Leu Ser Pro Arg Glu Val Gln
35 40 45

Val Thr Met Cys Ile Gly Ala Cys Pro Ser Gln Phe Arg Ala Ala Asn
50 55 60

Met His Ala Gln Ile Lys Thr Ser Leu His Arg Leu Lys Pro Asp Thr
65 70 75 80

Val Pro Ala Pro Cys Cys Val Pro Ala Ser Tyr Asn Pro Met Val Leu
85 90 95

Ile Gln Lys Thr Asp Thr Gly Val Ser Leu Gln Thr Tyr Asp Asp Leu
100 105 110

Leu Ala Lys Asp Cys His Cys Ile
115 120

<210> 3

<211> 120

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 3

Met His His His His His His Ala His Ala Arg Asp Gly Cys Pro Leu
1 5 10 15

Gly Glu Gly Arg Cys Cys Arg Leu Gln Ser Leu Arg Ala Ser Leu Gln

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Asp Leu Gly Trp Ala Asn Trp Val Val Ala Pro Arg Glu Leu Asp Val
35 40 45

Arg Met Cys Val Gly Ala Cys Pro Ser Gln Phe Arg Ser Ala Asn Thr
50 55 60

His Ala Gln Met Gln Ala Arg Leu His Gly Leu Asn Pro Asp Ala Ala
65 70 75 80

Pro Ala Pro Cys Cys Val Pro Ala Ser Tyr Glu Pro Val Val Leu Met
85 90 95

His Gln Asp Ser Asp Gly Arg Val Ser Leu Thr Pro Phe Asp Asp Leu
100 105 110

Val Ala Lys Asp Cys His Cys Val
115 120

<210> 4

<211> 112

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 4

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Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp Trp
20 25 30

Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala Cys
35 40 45

Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr Ser
50 55 60

Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val Pro
65 70 75 80

Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly Val
85 90 95

Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys Ile
100 105 110

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<210> 5
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 5
 Ala His Asn Gly Asp His Cys Pro Leu Gly Pro Gly Arg Cys Cys Arg
 1 5 10 15

Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp Trp
 20 25 30

Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala Cys
 35 40 45

Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr Ser
 50 55 60

Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val Pro
 65 70 75 80

Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly Val
 85 90 95

Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys Ile
 100 105 110

<210> 6
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 6
 Met His Ala Gly Asp His Cys Pro Leu Gly Pro Gly Arg Cys Cys Arg
 1 5 10 15

Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp Trp
 20 25 30

Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala Cys
 35 40 45

Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr Ser
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60

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55

Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val Pro
65 70 75 80

Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly Val
85 90 95

Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys Ile
100 105 110

<210> 7

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

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Ala His Ala Gly Asp His Cys Pro Leu Gly Pro Gly Arg Cys Cys Arg
1 5 10 15

Leu His Thr Val Arg Ala Ser Leu Glu Asp Leu Gly Trp Ala Asp Trp
20 25 30

Val Leu Ser Pro Arg Glu Val Gln Val Thr Met Cys Ile Gly Ala Cys
35 40 45

Pro Ser Gln Phe Arg Ala Ala Asn Met His Ala Gln Ile Lys Thr Ser
50 55 60

Leu His Arg Leu Lys Pro Asp Thr Val Pro Ala Pro Cys Cys Val Pro
65 70 75 80

Ala Ser Tyr Asn Pro Met Val Leu Ile Gln Lys Thr Asp Thr Gly Val
85 90 95

Ser Leu Gln Thr Tyr Asp Asp Leu Leu Ala Lys Asp Cys His Cys Ile
100 105 110

<210> 8

<211> 227

<212> PRT

<213> Homo sapiens

<400> 8

Tyr Pro Asn Ala Ser Pro Leu Leu Gly Ser Ser Trp Gly Gly Leu Ile
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His Leu Tyr Thr Ala Thr Ala Arg Asn Ser Tyr His Leu Gln Ile His
20 25 30

Lys Asn Gly His Val Asp Gly Ala Pro His Gln Thr Ile Tyr Ser Ala
35 40 45

Leu Met Ile Arg Ser Glu Asp Ala Gly Phe Val Val Ile Thr Gly Val
50 55 60

Met Ser Arg Arg Tyr Leu Cys Met Asp Phe Arg Gly Asn Ile Phe Gly
65 70 75 80

Ser His Tyr Phe Asp Pro Glu Asn Cys Arg Phe Gln His Gln Thr Leu
85 90 95

Glu Asn Gly Tyr Asp Val Tyr His Ser Pro Gln Tyr His Phe Leu Val
100 105 110

Ser Leu Gly Arg Ala Lys Arg Ala Phe Leu Pro Gly Met Asn Pro Pro
115 120 125

Pro Tyr Ser Gln Phe Leu Ser Arg Arg Asn Glu Ile Pro Leu Ile His
130 135 140

Phe Asn Thr Pro Ile Pro Arg Arg His Thr Arg Ser Ala Glu Asp Asp
145 150 155 160

Ser Glu Arg Asp Pro Leu Asn Val Leu Lys Pro Arg Ala Arg Met Thr
165 170 175

Pro Ala Pro Ala Ser Cys Ser Gln Glu Leu Pro Ser Ala Glu Asp Asn
180 185 190

Ser Pro Met Ala Ser Asp Pro Leu Gly Val Val Arg Gly Gly Arg Val
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Asn Thr His Ala Gly Gly Thr Gly Pro Glu Gly Cys Arg Pro Phe Ala
210 215 220

Lys Phe Ile
225

<210> 9
<211> 251
<212> PRT
<213> Homo sapiens

<400> 9
Met Leu Gly Ala Arg Leu Arg Leu Trp Val Cys Ala Leu Cys Ser Val

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Cys	Ser	Met	Ser
	20	Val	Leu
Arg	Ala	Tyr	Pro
25	Asn	Ala	Ser
30	Pro	Leu	Leu
Gly	Ser	Ser	Trp
35	Gly	Gly	Leu
40	Ile	His	Leu
45	Tyr	Thr	Ala
50	Thr	Ala	Arg
Asn	Ser	Tyr	His
55	Leu	Gln	Ile
60	His	Lys	Asn
65	Gly	His	Val
70	Asp	Gly	Ala
75	Pro	His	Gln
80	Thr	Ile	Tyr
85	Ser	Ala	Leu
90	Met	Ile	Arg
95	Ser	Glu	Asp
100	Ala	Gly	Ala
105	Asp	Pro	Glu
110	Asn	Val	Tyr
115	His	Gln	Thr
120	Leu	Glu	Asn
125	Gly	Tyr	Asp
130	Val	Tyr	His
135	Ser	Leu	Gly
140	Arg	Ala	Lys
145	Arg	Ala	Arg
150	Pro	Pro	Pro
155	Tyr	Ser	Gln
160	Phe	Leu	Ser
165	Arg	Arg	Arg
170	Pro	Ile	Pro
175	Arg	Arg	Arg
180	His	Thr	Arg
185	Ser	Glu	Arg
190	Asp	Pro	Leu
195	Asn	Ser	Pro
200	Met	Ala	Ser
205	Asp	Pro	Leu
210	Glu	Leu	Pro
215	Ser	Ala	Glu
220	Asp	Asn	Ser
225	Thr	His	Ala
230	Gly	Gly	Thr
235	Gly	Thr	Gly
240	Pro	Glu	Gly
245	Cys	Arg	Pro
250	Phe	Ile	

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<210> 10

<211> 228

<212> PRT

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 10

Met Tyr Pro Asn Ala Ser Pro Leu Leu Gly Ser Ser Trp Gly Gly Leu
1 5 10 15

Ile His Leu Tyr Thr Ala Thr Ala Arg Asn Ser Tyr His Leu Gln Ile
20 25 30

His Lys Asn Gly His Val Asp Gly Ala Pro His Gln Thr Ile Tyr Ser
35 40 45

Ala Leu Met Ile Arg Ser Glu Asp Ala Gly Phe Val Val Ile Thr Gly
50 55 60

Val Met Ser Arg Arg Tyr Leu Cys Met Asp Phe Arg Gly Asn Ile Phe
65 70 75 80

Gly Ser His Tyr Phe Asp Pro Glu Asn Cys Arg Phe Gln His Gln Thr
85 90 95

Leu Glu Asn Gly Tyr Asp Val Tyr His Ser Pro Gln Tyr His Phe Leu
100 105 110

Val Ser Leu Gly Arg Ala Lys Arg Ala Phe Leu Pro Gly Met Asn Pro
115 120 125

Pro Pro Tyr Ser Gln Phe Leu Ser Arg Arg Asn Glu Ile Pro Leu Ile
130 135 140

His Phe Asn Thr Pro Ile Pro Arg Arg His Thr Gln Ser Ala Glu Asp
145 150 155 160

Asp Ser Glu Arg Asp Pro Leu Asn Val Leu Lys Pro Arg Ala Arg Met
165 170 175

Thr Pro Ala Pro Ala Ser Cys Ser Gln Glu Leu Pro Ser Ala Glu Asp
180 185 190

Asn Ser Pro Met Ala Ser Asp Pro Leu Gly Val Val Arg Gly Gly Arg
195 200 205

Val Asn Thr His Ala Gly Gly Thr Gly Pro Glu Gly Cys Arg Pro Phe

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210

215

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Ala Lys Phe Ile
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<210> 11
<211> 146
<212> PRT
<213> Homo sapiens

<400> 11
Met Arg Leu Leu Gln Leu Leu Phe Arg Ala Ser Pro Ala Thr Leu Leu
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Leu Val Leu Cys Leu Gln Leu Gly Ala Asn Lys Ala Gln Asp Asn Thr
20 25 30

Arg Lys Ile Ile Ile Lys Asn Phe Asp Ile Pro Lys Ser Val Arg Pro
35 40 45

Asn Asp Glu Val Thr Ala Val Leu Ala Val Gln Thr Glu Leu Lys Glu
50 55 60

Cys Met Val Val Lys Thr Tyr Leu Ile Ser Ser Ile Pro Leu Gln Gly
65 70 75 80

Ala Phe Asn Tyr Lys Tyr Thr Ala Cys Leu Cys Asp Asp Asn Pro Lys
85 90 95

Thr Phe Tyr Trp Asp Phe Tyr Thr Asn Arg Thr Val Gln Ile Ala Ala
100 105 110

Val Val Asp Val Ile Arg Glu Leu Gly Ile Cys Pro Asp Asp Ala Ala
115 120 125

Val Ile Pro Ile Lys Asn Asn Arg Phe Tyr Thr Ile Glu Ile Leu Lys
130 135 140

Val Glu
145

<210> 12
<211> 118
<212> PRT
<213> Homo sapiens

<400> 12
Gln Asp Asn Thr Arg Lys Ile Ile Ile Lys Asn Phe Asp Ile Pro Lys
1 5 10 15

Listado de secuencias

Ser Val Arg Pro Asn Asp Glu Val Thr Ala Val Leu Ala Val Gln Thr
20 25 30

Glu Leu Lys Glu Cys Met Val Val Lys Thr Tyr Leu Ile Ser Ser Ile
35 40 45

Pro Leu Gln Gly Ala Phe Asn Tyr Lys Tyr Thr Ala Cys Leu Cys Asp
50 55 60

Asp Asn Pro Lys Thr Phe Tyr Trp Asp Phe Tyr Thr Asn Arg Thr Val
65 70 75 80

Gln Ile Ala Ala Val Val Asp Val Ile Arg Glu Leu Gly Ile Cys Pro
85 90 95

Asp Asp Ala Ala Val Ile Pro Ile Lys Asn Asn Arg Phe Tyr Thr Ile
100 105 110

Glu Ile Leu Lys Val Glu
115

<210> 13
<211> 125
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 13
Met His His His His His His Gln Asp Asn Thr Arg Lys Ile Ile Ile
1 5 10 15

Lys Asn Phe Asp Ile Pro Lys Ser Val Arg Pro Asn Asp Glu Val Thr
20 25 30

Ala Val Leu Ala Val Gln Thr Glu Leu Lys Glu Cys Met Val Val Lys
35 40 45

Thr Tyr Leu Ile Ser Ser Ile Pro Leu Gln Gly Ala Phe Asn Tyr Lys
50 55 60

Tyr Thr Ala Cys Leu Cys Asp Asp Asn Pro Lys Thr Phe Tyr Trp Asp
65 70 75 80

Phe Tyr Thr Asn Arg Thr Val Gln Ile Ala Ala Val Val Asp Val Ile
85 90 95

Arg Glu Leu Gly Ile Cys Pro Asp Asp Ala Ala Val Ile Pro Ile Lys
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Listado de secuencias

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105

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Asn Asn Arg Phe Tyr Thr Ile Glu Ile Leu Lys Val Glu
115 120 125

<210> 14
<211> 9
<212> PRT
<213> Homo sapiens

<400> 14
Cys Tyr Ile Gln Asn Cys Pro Leu Gly
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<210> 15
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 15
Met His His His His His His His Gln Asp Asn Thr Arg Lys Ile Ile
1 5 10 15

Ile Lys Asn Phe Asp Ile Pro Lys Ser Val Arg Pro Asn Asp Glu Val
20 25 30

Thr Ala Val Leu Ala Val Gln Thr Glu Leu Lys Glu Cys Met Val Val
35 40 45

Lys Thr Tyr Leu Ile Ser Ser Ile Pro Leu Gln Gly Ala Phe Asn Tyr
50 55 60

Lys Tyr Thr Ala Cys Leu Cys Asp Asp Asn Pro Lys Thr Phe Tyr Trp
65 70 75 80

Asp Phe Tyr Thr Asn Arg Thr Val Gln Ile Ala Ala Val Val Asp Val
85 90 95

Ile Arg Glu Leu Gly Ile Cys Pro Asp Asp Ala Ala Val Ile Pro Ile
100 105 110

Lys Asn Asn Arg Phe Tyr Thr Ile Glu Ile Leu Lys Val Glu
115 120 125

<210> 16
<211> 8
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Listado de secuencias

<220>
 <223> Description of Artificial Sequence: Synthetic polyhistidine tag

<400> 16
 Met His His His His His His Met
 1 5

<210> 17
 <211> 7
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polyhistidine tag

<400> 17
 Met His His His His His His
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<210> 18
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

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 <222> (1)..(1)
 <223> Pyroglutamate

<220>
 <221> MISC_FEATURE
 <222> (6)..(12)
 <223> Disulfide bond between residues

<220>
 <221> MOD_RES
 <222> (11)..(11)
 <223> Norleucine

<220>
 <223> C-term OH

<400> 18
 Xaa Arg Pro Arg Leu Cys His Lys Gly Pro Xaa Cys Phe
 1 5 10

<210> 19
 <211> 13
 <212> PRT
 <213> Artificial Sequence

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Listado de secuencias

<223> Description of Artificial Sequence: Synthetic peptide

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<221> MOD_RES

<222> (1)..(1)

<223> Pyroglutamate

<220>

<221> MISC_FEATURE

<222> (6)..(12)

<223> Disulfide bond between residues

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<222> (8)..(8)

<223> Lys-N6-[[[(1-alpha,8-alpha,9-alpha)-bicyclo[6.1.0]non-4-yn-9-ylmethoxy]carbonyl]

<220>

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<222> (11)..(11)

<223> Norleucine

<220>

<223> C-term OH

<400> 19

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<210> 20

<211> 19

<212> RNA

<213> Artificial Sequence

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<223> Description of Artificial Sequence: Synthetic oligonucleotide

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<223> 5'-phosphate

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<221> modified_base

<222> (1)..(2)

<223> 2'-fluoro modified nucleotide

<220>

<221> modified_base

<222> (3)..(3)

<223> 2'-O-methyl modified nucleotide

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<221> modified_base

<222> (4)..(4)

<223> 2'-fluoro modified nucleotide

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<221> modified_base

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<222> (17)..(18)
<223> 2'-MOE modified nucleotide

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 <222> (17)..(18)
 <223> Phosphorothioate linkage

<220>
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 <222> (18)..(19)
 <223> Phosphorothioate linkage

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 <222> (19)..(19)
 <223> Abasic ribitol nucleotide

<220>
 <223> 3'-x058 end cap

<400> 20
 uagagcaaga acacuguun

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<210> 21
 <211> 19
 <212> RNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic oligonucleotide

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 <222> (1)..(3)
 <223> 2'-O-methyl modified nucleotide

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 <222> (4)..(4)
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 <222> (8)..(8)
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Listado de secuencias

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aacaguguuc uugcucuan

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<210> 22
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<223> Description of Artificial Sequence: Synthetic

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polypeptide

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

Lys Gly Ile Gln Lys Pro Lys Ser Gly Thr Gln Gly Asn Tyr Asp Asp
35 40 45

Asp Trp Lys Glu Phe Tyr Ser Thr Asp Asn Lys Tyr Asp Ala Ala Gly
50 55 60

Tyr Ser Val Asp Asn Glu Asn Pro Leu Ser Gly Lys Ala Gly Gly Val
65 70 75 80

Val Lys Val Thr Tyr Pro Gly Leu Thr Lys Val Leu Ala Leu Lys Val
85 90 95

Asp Asn Ala Glu Thr Ile Lys Lys Glu Leu Gly Leu Ser Leu Thr Glu
100 105 110

Pro Leu Met Glu Gln Val Gly Thr Glu Glu Phe Ile Lys Arg Phe Gly
115 120 125

Asp Gly Ala Ser Arg Val Val Leu Ser Leu Pro Phe Ala Glu Gly Ser
130 135 140

Ser Ser Val Glu Tyr Ile Asn Asn Trp Glu Gln Ala Lys Ala Leu Ser
145 150 155 160

Val Glu Leu Glu Ile Asn Phe Glu Thr Arg Gly Lys Arg Gly Gln Asp
165 170 175

Ala Met Tyr Glu Tyr Met Ala Gln Ala Cys Ala Gly Asn Arg Val Arg
180 185 190

Arg Ser Val Gly Ser Ser Leu Ser Cys Ile Asn Leu Asp Trp Asp Val
195 200 205

Ile Arg Asp Lys Thr Lys Thr Lys Ile Glu Ser Leu Lys Glu His Gly
210 215 220

Pro Ile Lys Asn Lys Met Ser Glu Ser Pro Asn Lys Thr Val Ser Glu
225 230 235 240

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Glu Lys Ala Lys Gln Tyr Leu Glu Glu Phe His Gln Thr Ala Leu Glu
245 250 255

His Pro Glu Leu Ser Glu Leu Lys Thr Val Thr Gly Thr Asn Pro Val
260 265 270

Phe Ala Gly Ala Asn Tyr Ala Ala Trp Ala Val Asn Val Ala Gln Val
275 280 285

Ile Asp Ser Glu Thr Ala Asp Asn Leu Glu Lys Thr Thr Ala Ala Leu
290 295 300

Ser Ile Leu Pro Gly Ile Gly Ser Val Met Gly Ile Ala Asp Gly Ala
305 310 315 320

Val His His Asn Thr Glu Glu Ile Val Ala Gln Ser Ile Ala Leu Ser
325 330 335

Ser Leu Met Val Ala Gln Ala Ile Pro Leu Val Gly Glu Leu Val Asp
340 345 350

Ile Gly Phe Ala Ala Tyr Asn Phe Val Glu Ser Ile Ile Asn Leu Phe
355 360 365

Gln Val Val His Asn Ser Tyr Asn Arg Pro Ala Tyr Ser Pro Gly His
370 375 380

Lys Thr Gln Pro Phe Leu His Asp Gly Tyr Ala Val Ser Trp Asn Thr
385 390 395 400

Val Glu Asp Ser Ile Ile Arg Thr Gly Phe Gln Gly Glu Ser Gly His
405 410 415

Asp Ile Lys Ile Thr Ala Glu Asn Thr Pro Leu Pro Ile Ala Gly Val
420 425 430

Leu Leu Pro Thr Ile Pro Gly Lys Leu Asp Val Asn Lys Ser Lys Thr
435 440 445

His Ile Ser Val Asn Gly Arg Lys Ile Arg Met Arg Cys Arg Ala Ile
450 455 460

Asp Gly Asp Val Thr Phe Cys Arg Pro Lys Ser Pro Val Tyr Val Gly
465 470 475 480

Asn Gly Val His Ala Asn Leu His Val Ala Phe His Arg Ser Ser Ser
485 490 495

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Glu Lys Ile His
500

<210> 23
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<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<220>
<223> N-term butyrate

<220>
<221> MOD_RES
<222> (6)..(6)
<223> Gly(N-CH₂CH₂CH₂NH₂)

<220>
<223> C-term NH₂

<400> 23
Tyr Ile Gln Asn Cys Gly Leu Gly
1 5

<210> 24
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<213> Unknown

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<223> Description of Unknown:
Agouti-Related Peptide sequence

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Ser Ser Arg Arg Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln
1 5 10 15

Val Pro Cys Cys Asp Pro Cys Ala Thr Cys Tyr Cys Arg Phe Phe Asn
20 25 30

Ala Phe Cys Tyr Cys Arg Lys Leu Gly Thr Ala Met Asn Pro Cys Ser
35 40 45

Arg Thr
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<210> 25
<211> 20
<212> PRT
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<223> Description of Unknown:

Agouti-Related Peptide sequence

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Ser Ser Arg Arg Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln
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Val Pro Cys Cys
20

<210> 26

<211> 53

<212> PRT

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<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 26

Asp Ser Trp Met Glu Glu Val Ile Lys Leu Cys Gly Arg Glu Leu Val
1 5 10 15

Arg Ala Gln Ile Ala Ile Cys Gly Met Ser Thr Trp Ser Cys Phe Arg
20 25 30

Ala Leu Ser Arg Lys Thr Cys Gly Val His Cys Cys Lys Asn Ala Leu
35 40 45

Ala Ser Tyr Leu Glu
50

<210> 27

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic peptide

<220>

<221> MOD_RES

<222> (8)..(8)

<223> Lys-fatty acid

<400> 27

Cys Cys His Val Gly Cys Thr Lys Arg Ser Leu Ala Arg Phe Cys
1 5 10 15

<210> 28

<211> 53

<212> PRT

<213> Artificial Sequence

Listado de secuencias

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<220>

<221> MOD_RES

<222> (53)..(53)

<223> Pyroglutamate

<400> 28

Asp Ser Trp Met Glu Glu Val Ile Lys Leu Cys Gly Arg Glu Leu Val
1 5 10 15

Arg Ala Gln Ile Ala Ile Cys Gly Met Ser Thr Trp Ser Cys Phe Arg
20 25 30

Ala Leu Ser Arg Lys Thr Cys Gly Val His Cys Cys Lys Asn Ala Leu
35 40 45

Ala Ser Tyr Leu Xaa
50

<210> 29

<211> 145

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 29

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Met His His His His His His Gln Asp Asn Thr Arg
20 25 30

Lys Ile Ile Ile Lys Asn Phe Asp Ile Pro Lys Ser Val Arg Pro Asn
35 40 45

Asp Glu Val Thr Ala Val Leu Ala Val Gln Thr Glu Leu Lys Glu Cys
50 55 60

Met Val Val Lys Thr Tyr Leu Ile Ser Ser Ile Pro Leu Gln Gly Ala
65 70 75 80

Phe Asn Tyr Lys Tyr Thr Ala Cys Leu Cys Asp Asp Asn Pro Lys Thr
85 90 95

Phe Tyr Trp Asp Phe Tyr Thr Asn Arg Thr Val Gln Ile Ala Ala Val
100 105 110

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Val Asp Val Ile Arg Glu Leu Gly Ile Cys Pro Asp Asp Ala Ala Val
 115 120 125

Ile Pro Ile Lys Asn Asn Arg Phe Tyr Thr Ile Glu Ile Leu Lys Val
 130 135 140

Glu
 145

<210> 30
 <211> 454
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polynucleotide

<400> 30 gctagccacc atggagactg atactttgtt gttgtgggta ctgttgcttt gggtgcccgg	60
tagtaccggt atgcatcacc accaccatca ccaggacaac acccggaaga tcatcatcaa	120
gaacttcgac atccctaaga gcgtgcgccc aaacgatgaa gtcaccgcgg tgctggcagt	180
gcagactgag ctgaaggagt gcatggtggt caagacgtac ctgatttcgt ccatcccgct	240
gcaaggcgcc ttcaactaca agtacctgc ctgcctctgt gacgacaacc ccaagacctt	300
ttactgggac ttctacacca atagaactgt ccagattgct gccgtggtgg atgtgatcag	360
ggaattggga atttgccccg acgatgcggc cgtgattccg atcaagaaca accgcttcta	420
taccatcgag atccttaaag tggaatgaga attc	454

<210> 31
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polyhistidine tag

<400> 31
 Met His His His His His
 1 5

<210> 32
 <211> 13
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

Listado de secuencias

<220>
 <221> MOD_RES
 <222> (1)..(1)
 <223> Met-fatty acid

<400> 32
 Met His His His His His His Gln Asp Asn Thr Arg Lys
 1 5 10

<210> 33
 <211> 25
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<220>
 <221> MOD_RES
 <222> (19)..(19)
 <223> Lys-fatty acid

<400> 33
 Ser Val Arg Pro Asn Asp Glu Val Thr Ala Val Leu Ala Val Gln Thr
 1 5 10 15

Glu Leu Lys Glu Cys Met Val Val Lys
 20 25

<210> 34
 <211> 30
 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown:
 Agouti-Related Peptide sequence

<400> 34
 Asp Pro Cys Ala Thr Cys Tyr Cys Arg Phe Phe Asn Ala Phe Cys Tyr
 1 5 10 15

Cys Arg Lys Leu Gly Thr Ala Met Asn Pro Cys Ser Arg Thr
 20 25 30

<210> 35
 <211> 20
 <212> PRT
 <213> Unknown

<220>
 <223> Description of Unknown:
 Agouti-Related Peptide sequence

Listado de secuencias

<220>

<223> See specification as filed for detailed description of substitutions and preferred embodiments

<400> 35

Ser Ser Arg Arg Cys Val Arg Leu His Glu Ser Cys Leu Gly Gln Gln
1 5 10 15

Val Pro Cys Cys
20

<210> 36

<211> 30

<212> PRT

<213> Unknown

<220>

<223> Description of Unknown:
Agouti-Related Peptide sequence

<220>

<223> See specification as filed for detailed description of substitutions and preferred embodiments

<400> 36

Asp Pro Cys Ala Thr Cys Tyr Cys Arg Phe Phe Asn Ala Phe Cys Tyr
1 5 10 15

Cys Arg Lys Leu Gly Thr Ala Met Asn Pro Cys Ser Arg Thr
20 25 30