

<110> HANMI PHARM. CO., LTD.

<120> THERAPEUTIC USE OF COMBINATION INCLUDING TRIPLE AGONIST HAVING ACTIVITIES TO ALL OF GLUCAGON, GLP-1, AND GIP RECEPTORS

<130> OPA22096

<150> KR 10-2021-0086014

<151> 2021-06-30

<160> 123

<170> KoPatentIn 3.0

<210> 1

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 1

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

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

<210> 2

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 2

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

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

<210> 3

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 3

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

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

Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser	Cys
		35					40	

<210> 4

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 4

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

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

<210> 5

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 5

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

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

Ser	Ser	Gly	Ala	Pro	Pro	Pro	Ser	Cys
		35					40	

<210> 6

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<212> PRT

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<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 6

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

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

<210> 7

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<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 7

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

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

<210> 8

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<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<400> 8
His Xaa Gln Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Asp Gly
1 5 10 15

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

<210> 9
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<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<400> 9
His Xaa Gln Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Asp Gly
1 5 10 15

Gln Ala Ala Gln Glu Phe Val Ala Trp Leu Leu Ala Gly Cys
20 25 30

<210> 10
<211> 41
<212> PRT
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<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<400> 10
His Xaa Gln Gly Thr Phe Thr Ser Asp Val Ser Lys Tyr Leu Asp Gly
1 5 10 15

Gln Ala Ala Gln Glu Phe Val Ala Trp Leu Leu Ala Gly Gly Gly Pro
20 25 30

Ser Ser Gly Ala Pro Pro Pro Ser Cys
35 40

<210> 11
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<220>
<223> Trigonal agonist

<220>
<221> MISC_FEATURE
<222> (1)
<223> Xaa is 4-imidazoacetyl (CA)

<400> 11
Xaa Gly Glu Gly Thr Phe Thr Ser Asp Leu Ser Lys Tyr Leu Asp Ser
1 5 10 15

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

Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

<210> 12
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<220>
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<220>
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<222> (1)
<223> Xaa is 4-imidazoacetyl (CA)

<400> 12
Xaa Gly Glu Gly Thr Phe Ile Ser Asp Leu Ser Lys Tyr Met Asp Glu
1 5 10 15
Gln Ala Val Gln Leu Phe Val Glu Trp Leu Met Ala Gly Gly Pro Ser
20 25 30
Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

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

<220>
<223> Trigonal agonist

<220>
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<222> (1)
<223> Xaa is 4-imidazoacetyl (CA)

<400> 13
Xaa Gly Glu Gly Thr Phe Ile Ser Asp Tyr Ser Ile Gln Leu Asp Glu
1 5 10 15
Ile Ala Val Gln Asp Phe Val Glu Trp Leu Leu Ala Gln Lys Pro Ser
20 25 30
Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

<210> 14
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Trigonal agonist

<220>
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<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<400> 14

Xaa Gly Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Gln Leu Asp Glu
1 5 10 15

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

Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

<210> 15

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

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<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<400> 15

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

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

Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

<210> 16

<211> 41

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<220>

<223> Trigonal agonist

<220>
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 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<400> 16
 Xaa Gly Gln Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Asp Ser
 1 5 10 15
 Glu Ala Gln Gln Leu Phe Ile Glu Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser His Gly
 35 40

<210> 17
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<220>
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<220>
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 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<400> 17
 Xaa Gly Gln Gly Thr Phe Thr Ser Asp Leu Ser Lys Gln Met Asp Glu
 1 5 10 15
 Glu Arg Ala Arg Glu Phe Ile Glu Trp Leu Leu Ala Gln Lys Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser His Gly
 35 40

<210> 18
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<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<400> 18

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

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

Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

<210> 19

<211> 41

<212> PRT

<213> Artificial Sequence

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<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<400> 19

Xaa Gly Gln Gly Thr Phe Thr Ser Asp Leu Ser Ile Gln Tyr Asp Ser
1 5 10 15

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

Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

<210> 20

<211> 41

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

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<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<400> 20

Xaa Gly Gln Gly Thr Phe Thr Ser Asp Leu Ser Ile Gln Tyr Glu Glu
1 5 10 15

Glu Ala Gln Gln Asp Phe Val Glu Trp Leu Lys Asp Thr Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser His Gly
35 40

<210> 21

<211> 39

<212> PRT

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<220>

<223> Trigonal agonist

<220>

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<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 21

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

Cys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser

	20	25	30
--	----	----	----

Ser Gly Gln Pro Pro Pro Ser
35

<210> 22
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<220>
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<220>
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 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 22
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Cys Leu Asp Glu
 1 5 10 15
 Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30
 Ser Gly Gln Pro Pro Pro Ser
 35

<210> 23
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<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 23
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Cys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Ala Gln Lys Gly Lys
 20 25 30
 Lys Asn Asp Trp Lys His Asn Ile Thr
 35 40

<210> 24
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<220>
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<220>
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 <223> Xaa is aminoisobutyric acid (Aib)

<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 24
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Cys Arg Ala Lys Glu Phe Val Gln Trp Leu Lys Asn Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 25
<211> 39
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<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<400> 25
His Xaa Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Tyr Leu Asp Glu
1 5 10 15

Arg Ala Ala Gln Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 26
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<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<400> 26
His Xaa Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Tyr Leu Asp Ser
1 5 10 15

Arg Ala Ala Gln Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 27
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<213> Artificial Sequence

<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<400> 27
His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15

Arg Ala Cys Gln Asp Phe Val Gln Trp Leu Leu Asp Gln Gly Gly Pro
20 25 30

Ser Ser Gly Ala Pro Pro Pro Ser
35 40

<210> 28
<211> 41
<212> PRT
<213> Artificial Sequence

<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<400> 28

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

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

Lys Asn Asp Trp Lys His Asn Ile Thr
 35 40

<210> 29
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 29
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15

Lys Ala Ala Lys Glu Phe Val Gln Trp Leu Leu Asn Thr Cys
 20 25 30

<210> 30
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>

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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 30
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Ala Gln Lys Glu Phe Val Gln Trp Leu Leu Asp Thr Cys
 20 25 30

<210> 31
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<220>
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<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 31
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Ala Cys Lys Glu Phe Val Gln Trp Leu Leu Ala Gln
 20 25

<210> 32

<211> 39
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 <213> Artificial Sequence

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<220>
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 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 32
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Ala Cys Lys Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 33
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 33

His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Tyr	Ser	Ile	Ala	Met	Asp	Glu
1				5				10						15	

Ile	His	Gln	Lys	Asp	Phe	Val	Asn	Trp	Leu	Leu	Ala	Gln	Lys	Cys
		20					25						30	

<210> 34

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 34

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

Lys	Arg	Gln	Lys	Glu	Phe	Val	Asn	Trp	Leu	Leu	Ala	Gln	Lys	Cys
		20					25						30	

<210> 35

<211> 31

<212> PRT

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<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 35
His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
1 5 10 15
Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Asn Thr Lys Cys
20 25 30

<210> 36
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 36
His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Cys Glu

1	5	10	15
Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asn Gly Gly Pro Ser			
	20	25	30

Ser Gly Ala Pro Pro Pro Ser Gly
35 40

<210> 37
 <211> 40
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<220>
 <223> Trigonal agonist

<220>
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<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400>	37
His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu	
1 5 10 15	

Cys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asn Gly Gly Pro Ser
20 25 30

Ser Gly Ala Pro Pro Pro Ser Gly
35 40

<210> 38
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 <212> PRT
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<220>
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<220>
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 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<400> 38
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Ser Tyr Leu Asp Glu
 1 5 10 15
 Arg Ala Ala Gln Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser Ser
 35 40

<210> 39
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<400> 39
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Gly
 1 5 10 15
 Gln His Ala Gln Cys Phe Val Ala Trp Leu Leu Ala Gly Gly Gly Pro
 20 25 30
 Ser Ser Gly Ala Pro Pro Pro Ser
 35 40

<210> 40
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 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<400> 40
 His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Arg Ala Cys Gln Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 41
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<400> 41
 His Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Cys Ala Ala Gln Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
35

<210> 42
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<212> PRT
<213> Artificial Sequence

<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<220>
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<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 42
Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15

Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
20 25 30

Ser Gly Gln Pro Pro Pro Ser Cys
35 40

<210> 43
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<212> PRT
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<220>
<223> Trigonal agonist

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 43
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Cys Ser
 20 25 30
 Ser Gly Gln Pro Pro Pro Ser
 35

<210> 44
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<400> 44
 His Gly Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Gln Leu Asp Gly
 1 5 10 15
 Gln Ala Ala Gln Glu Phe Val Ala Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 45
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<400> 45

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

Gln Ala Ala Gln Asp Phe Val Ala Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 46
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<400> 46
 His Gly Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Tyr Leu Asp Glu
 1 5 10 15

Gln His Ala Gln Glu Phe Val Ala Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 47
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<400> 47
 His Gly Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Tyr Leu Asp Gly
 1 5 10 15

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

Ser Gly Ala Pro Pro Pro Ser
 35

<210> 48
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<400> 48
 His Gly Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Tyr Leu Asp Gly
 1 5 10 15
 Gln Arg Ala Gln Asp Phe Val Asn Trp Leu Leu Ala Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 49
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 49

Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Cys Met Asp Glu
 1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Asn Thr Lys
 20 25 30

<210> 50
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 50
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15

Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30

Ser Gly Gln Pro Pro Pro Ser Cys
 35 40

<210> 51
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>

<221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 51
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asn Thr Cys
 20 25 30

<210> 52
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 52
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asp Thr Cys
 20 25 30

<210> 53

<211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 53
 His Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln Cys
 20 25 30

<210> 54
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 54
 His Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15

Ile His Gln Lys Asp Phe Val Asp Trp Leu Leu Ala Glu Cys
 20 25 30

<210> 55
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 55
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln Cys
 20 25 30

<210> 56
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 56

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

Lys	Arg	Gln	Lys	Glu	Phe	Val	Asn	Trp	Leu	Leu	Ala	Gln	Cys
		20					25					30	

<210> 57

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 57

His	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Tyr	Ser	Ile	Ala	Met	Asp	Glu
1				5				10					15		

Ile	His	Gln	Lys	Asp	Phe	Val	Asn	Trp	Leu	Leu	Asn	Thr	Cys
		20					25					30	

<210> 58

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 58

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

Lys	Arg	Gln	Lys	Glu	Phe	Val	Gln	Trp	Leu	Leu	Asn	Thr	Lys	Cys
		20					25						30	

<210> 59

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 59
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Cys Met Asp Glu
 1 5 10 15
 Lys His Gln Lys Asp Phe Val Asn Trp Leu Leu Asn Thr Lys
 20 25 30

<210> 60
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 60
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Lys His Cys Lys Asp Phe Val Asn Trp Leu Leu Asn Thr Lys
 20 25 30

<210> 61
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 61
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile Ala Cys Lys Asp Phe Val Asn Trp Leu Leu Asn Thr Lys
 20 25 30

<210> 62
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
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 <223> Xaa is 4-imidazoacetyl (CA)

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<400> 62
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Lys Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Arg Ala Ala Gln Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 63
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<400> 63
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Arg Ala Ala Gln Asp Phe Val Gln Trp Leu Leu Asp Gly Gly Pro Ser
 20 25 30
 Ser Gly Ala Pro Pro Pro Ser
 35

<210> 64
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 64
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Cys Ala Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30
 Ser Gly Gln Pro Pro Pro Ser
 35

<210> 65
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 65
 His Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Cys Leu Asp Glu
 1 5 10 15
 Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30
 Ser Gly Gln Pro Pro Pro Ser
 35

<210> 66
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 66
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Cys Arg Ala Lys Asp Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30
 Ser Gly Gln Pro Pro Pro Ser
 35

<210> 67

<211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 67
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Cys Ala Ala Lys Asp Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30
 Ser Gly Gln Pro Pro Pro Ser
 35

<210> 68
 <211> 39
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 68

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

Lys	Ala	Ala	Lys	Glu	Phe	Val	Gln	Trp	Leu	Leu	Asp	His	His	Pro	Ser
			20				25					30			

Ser	Gly	Gln	Pro	Pro	Pro	Ser
		35				

<210> 69

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 69

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

Arg	Ala	Ala	Lys	Glu	Phe	Val	Gln	Trp	Leu	Leu	Asp	His	His	Pro	Ser
			20				25					30			

Ser	Gly	Gln	Pro	Pro	Pro	Ser
		35				

<210> 70

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 70

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

Lys	Arg	Ala	Lys	Asp	Phe	Val	Gln	Trp	Leu	Leu	Asp	His	His	Pro	Ser
			20					25					30		

Ser	Gly	Gln	Pro	Pro	Pro	Ser
			35			

<210> 71

<211> 39

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 71
Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15
Arg Ala Cys Lys Asp Phe Val Gln Trp Leu Leu Asp His His Pro Ser
20 25 30
Ser Gly Gln Pro Pro Pro Ser
35

<210> 72
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Trigonal agonist

<220>
<221> MISC_FEATURE
<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 72
Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Cys Ser Lys Tyr Leu Asp Glu
1 5 10 15
Arg Ala Ala Lys Asp Phe Val Gln Trp Leu Leu Asp His His Pro Ser
20 25 30
Ser Gly Gln Pro Pro Pro Ser
35

<210> 73
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Trigonal agonist

<220>
<221> MISC_FEATURE
<222> (1)
<223> Xaa is 4-imidazoacetyl (CA)

<220>
<221> MISC_FEATURE
<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 73
Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15
Cys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
20 25 30
Ser Gly Gln Pro Pro Pro Ser
35

<210> 74
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Trigonal agonist

<220>
<221> MISC_FEATURE
<222> (1)
<223> Xaa is 4-imidazoacetyl (CA)

<220>

<221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 74
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Cys Leu Asp Glu
 1 5 10 15

Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30

Ser Gly Gln Pro Pro Pro Ser
 35

<210> 75
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 75
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15

Lys Ala Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30

Ser Gly Gln Pro Pro Pro Ser Cys
 35 40

<210> 76
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 76
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15

Lys Arg Ala Lys Asp Phe Val Gln Trp Leu Leu Asp His His Pro Ser
 20 25 30

Ser Gly Gln Pro Pro Pro Ser Cys
 35 40

<210> 77
 <211> 40
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 77

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

Lys Ala Ala Lys Asp Phe Val Gln Trp Leu Leu Asp His His Pro Ser
20 25 30

Ser Gly Gln Pro Pro Pro Ser Cys
35 40

<210> 78

<211> 31

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

<220>

<221> MISC_FEATURE

<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 78

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

Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asp Thr Lys Cys
20 25 30

<210> 79
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 79
 His Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Cys
 20 25 30

<210> 80
 <211> 31
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 80
 His Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile His Gln Lys Asp Phe Val Asp Trp Leu Leu Ala Glu Lys Cys
 20 25 30

<210> 81
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 81
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asn Thr Cys
 20 25 30

<210> 82
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
 <221> MISC_FEATURE
 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 82
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asp Thr Cys
 20 25 30

<210> 83
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Trigonal agonist

<220>
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 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
 <221> MISC_FEATURE
 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 83
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln Cys
 20 25 30

<210> 84
 <211> 30
 <212> PRT
 <213> Artificial Sequence

<220>
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<220>
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 <222> (1)
 <223> Xaa is 4-imidazoacetyl (CA)

<220>
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 <222> (2)
 <223> Xaa is aminoisobutyric acid (Aib)

<220>
 <221> MISC_FEATURE
 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 84
Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
1 5 10 15

Ile His Gln Lys Asp Phe Val Asp Trp Leu Leu Ala Glu Cys
20 25 30

<210> 85
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<223> Xaa is 4-imidazoacetyl (CA)

<220>
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<222> (2)
<223> Xaa is aminoisobutyric acid (Aib)

<220>
<221> MISC_FEATURE
<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 85
Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln Cys
20 25 30

<210> 86
<211> 30
<212> PRT
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<223> Trigonal agonist

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<221> MISC_FEATURE

<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<220>

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<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>

<221> MISC_FEATURE

<222> (16)..(20)

<223> amino acids at positions 16 and 20 form a ring

<400> 86

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

Lys	Arg	Gln	Lys	Glu	Phe	Val	Asn	Trp	Leu	Leu	Ala	Gln	Cys
		20					25						30

<210> 87

<211> 30

<212> PRT

<213> Artificial Sequence

<220>

<223> Trigonal agonist

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<221> MISC_FEATURE

<222> (1)

<223> Xaa is 4-imidazoacetyl (CA)

<220>

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<222> (2)

<223> Xaa is aminoisobutyric acid (Aib)

<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 87
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15

Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Asn Thr Cys
 20 25 30

<210> 88
 <211> 31
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<400> 88
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15

Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asn Thr Lys Cys
 20 25 30

<210> 89
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<400> 89
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
 1 5 10 15
 Lys Arg Gln Lys Glu Phe Val Gln Trp Leu Leu Asp Thr Lys Cys
 20 25 30

<210> 90
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<400> 90
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Cys
 20 25 30

<210> 91
 <211> 31
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<220>
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 <223> Xaa is 4-imidazoacetyl (CA)

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<400> 91
 Xaa Xaa Glu Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile His Gln Lys Asp Phe Val Asp Trp Leu Leu Ala Glu Lys Cys
 20 25 30

<210> 92
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 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
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 Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Ala Gln Lys Cys
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<400> 93
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 1 5 10 15
 Lys Arg Gln Lys Glu Phe Val Asn Trp Leu Leu Ala Gln Lys Cys
 20 25 30

<210> 94
 <211> 31
 <212> PRT
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<220>
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 <223> Xaa is 4-imidazoacetyl (CA)

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 <223> Xaa is aminoisobutyric acid (Aib)

<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 94
 Xaa Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Ile Ala Met Asp Glu
 1 5 10 15
 Ile His Gln Lys Asp Phe Val Asn Trp Leu Leu Asn Thr Lys Cys
 20 25 30

<210> 95
 <211> 39
 <212> PRT
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<220>
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<220>
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<220>
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 <222> (16)..(20)
 <223> amino acids at positions 16 and 20 form a ring

<400> 95
Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15
Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Cys His His Pro Ser
20 25 30
Ser Gly Gln Pro Pro Pro Ser
35

<210> 96
<211> 39
<212> PRT
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<220>
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<223> Xaa is aminoisobutyric acid (Aib)

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<400> 96
Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15
Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp His Cys Pro Ser
20 25 30
Ser Gly Gln Pro Pro Pro Ser
35

<210> 97
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<223> Xaa is aminoisobutyric acid (Aib)

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<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 97
Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Tyr Leu Asp Glu
1 5 10 15
Lys Arg Ala Lys Glu Phe Val Gln Trp Leu Leu Asp Cys His Pro Ser
20 25 30
Ser Gly Gln Pro Pro Pro Ser
35

<210> 98
<211> 40
<212> PRT
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<220>
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<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 98

Tyr	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Tyr	Ser	Lys	Ala	Leu	Asp	Glu
1				5					10					15	
Lys	Ala	Ala	Lys	Glu	Phe	Val	Asn	Trp	Leu	Leu	Asp	His	His	Pro	Ser
			20					25					30		
Ser	Gly	Gln	Pro	Pro	Pro	Ser	Cys								
		35					40								

<210> 99
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<220>
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<400> 99

Tyr	Xaa	Gln	Gly	Thr	Phe	Thr	Ser	Asp	Tyr	Ser	Lys	Ala	Leu	Asp	Glu
1				5					10					15	
Lys	Ala	Ala	Lys	Asp	Phe	Val	Asn	Trp	Leu	Leu	Asp	His	His	Pro	Ser
			20					25					30		
Ser	Gly	Gln	Pro	Pro	Pro	Ser	Cys								
		35					40								

<210> 100
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<400> 100
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Ala Leu Asp Glu
 1 5 10 15
 Lys Ala Ala Lys Glu Phe Val Gln Trp Leu Leu Asp Gln His Pro Ser
 20 25 30
 Ser Gly Gln Pro Pro Pro Ser Cys
 35 40

<210> 101
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<220>
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 <223> amino acids at positions 16 and 20 form a ring

<400> 101
 Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Ala Leu Asp Glu
 1 5 10 15

Lys Ala Ala Lys Glu Phe Val Asn Trp Leu Leu Asp Gln His Pro Ser
20 25 30

Ser Gly Gln Pro Pro Pro Ser Cys
35 40

<210> 102
<211> 40
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<222> (16)..(20)
<223> amino acids at positions 16 and 20 form a ring

<400> 102
Tyr Xaa Gln Gly Thr Phe Thr Ser Asp Tyr Ser Lys Ala Leu Asp Glu
1 5 10 15

Lys Ala Ala Lys Asp Phe Val Asn Trp Leu Leu Asp Gln His Pro Ser
20 25 30

Ser Gly Gln Pro Pro Pro Ser Cys
35 40

<210> 103
<211> 12
<212> PRT
<213> HOMO SAPIENS

<400> 103
Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro
1 5 10

<210> 104
 <211> 11
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Variant of hinge region

 <400> 104
 Glu Ser Lys Tyr Gly Pro Pro Pro Ser Cys Pro
 1 5 10

 <210> 105
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 <220>
 <223> Variant of hinge region

 <400> 105
 Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Pro
 1 5 10

 <210> 106
 <211> 10
 <212> PRT
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 <400> 106
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 1 5 10

 <210> 107
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 <220>

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<400> 107

Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro
1 5 10

<210> 108

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<223> Variant of hinge region

<400> 108

Lys Tyr Gly Pro Pro Cys Pro Ser
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<210> 109

<211> 8

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<400> 109

Glu Ser Lys Tyr Gly Pro Pro Cys
1 5

<210> 110

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<212> PRT

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<400> 110

Glu Lys Tyr Gly Pro Pro Cys
1 5

<210> 111
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<400> 111
 Glu Ser Pro Ser Cys Pro
 1 5

<210> 112
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<400> 112
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 1 5

<210> 113
 <211> 4
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 <220>
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<400> 113
 Pro Ser Cys Pro
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<210> 114
 <211> 10
 <212> PRT
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<223> Variant of hinge region

<400> 114

Glu Ser Lys Tyr Gly Pro Pro Ser Cys Pro
1 5 10

<210> 115

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Variant of hinge region

<400> 115

Lys Tyr Gly Pro Pro Pro Ser Cys Pro
1 5

<210> 116

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

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<400> 116

Glu Ser Lys Tyr Gly Pro Ser Cys Pro
1 5

<210> 117

<211> 8

<212> PRT

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<400> 117

Glu Ser Lys Tyr Gly Pro Pro Cys
1 5

<210> 118
 <211> 7
 <212> PRT
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<400> 118
 Lys Tyr Gly Pro Pro Cys Pro
 1 5

<210> 119
 <211> 7
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<400> 119
 Glu Ser Lys Pro Ser Cys Pro
 1 5

<210> 120
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<400> 120
 Glu Ser Pro Ser Cys Pro
 1 5

<210> 121
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 <220>

<223> Variant of hinge region

<400> 121
Glu Pro Ser Cys
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<210> 122
<211> 3
<212> PRT
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<220>
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<400> 122
Ser Cys Pro
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<210> 123
<211> 221
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<213> homo sapiens

<400> 123
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1 5 10 15

Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu
20 25 30

Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu Val Gln
35 40 45

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

Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser Val Leu
65 70 75 80

Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys
85 90 95

Val Ser Asn Lys Gly Leu Pro Ser Ser Ile Glu Lys Thr Ile Ser Lys
100 105 110

Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro	Pro	Ser	
		115					120					125				
Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu	Val	Lys	
	130					135					140					
Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn	Gly	Gln	
145					150					155					160	
Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	
				165					170					175		
Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg	Trp	Gln	
			180					185					190			
Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala	Leu	His	Asn	
		195					200					205				
His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys				
	210					215					220					