

eolf-seql
SEQUENCE LISTING

<110> MORPHOSYS AG

<120> POLYPEPTIDE LIBRARY

<130> MS243/PCT

<140> EP 16158782.9

<141> 2016-03-04

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<170> PatentIn version 3.5

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<223> /replace="T" or "N" or "S" or "P"

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<222> (3)..(3)

<223> Any amino acid residue having a side chain exhibiting a hydrophobicity of greater than 0.62

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<222> (4)..(4)

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<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 1
Asp Glu Xaa Ala Met Xaa Ala Ala Ala Xaa Ala Met Xaa Ala Ala
1 5 10 15

<210> 2
<211> 60
<212> PRT
<213> Artificial Sequence

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polypeptide"

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<223> /replace="P" or "Q" or "W" or "D"

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hydrophobicity of greater than 0.62

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for variant positions"

<400> 2

Asp Glu Xaa Ala Met Xaa Ala Ala Ala Xaa Ala Met Xaa Ala Ala Xaa
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Glu Xaa
35 40 45

Ala Met Xaa Ala Ala Ala Xaa Ala Met Xaa Ala Ala
50 55 60

<210> 3

<211> 60

<212> PRT

<213> Artificial Sequence

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<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

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 or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

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<400> 3
 Asp Glu Xaa Ala Gln Xaa Ala Ala Glu Xaa Ala Lys Xaa Ala Ala Xaa
 1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
 20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Glu Xaa
 35 40 45

Ala Ala Xaa Ala Ala Lys Xaa Ala Met Xaa Ala Ala
 50 55 60

<210> 4
 <211> 60
 <212> PRT
 <213> Artificial Sequence

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or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

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or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

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or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

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<220>
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<222> (16)..(45)
<223> Any amino acid or not present

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<221> VARIANT

eolf-seql

<222> (59)..(59)

<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

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<220>

<221> MISC_FEATURE

<222> (1)..(60)

<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 4

Asp Glu Leu Ala Met Leu Ala Ala Ala Leu Ala Met Leu Ala Ala Xaa
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Glu Leu
35 40 45

Ala Met Leu Ala Ala Ala Leu Ala Met Leu Ala Ala
50 55 60

<210> 5

<211> 60

<212> PRT

<213> Artificial Sequence

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<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

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<223> /replace="T" or "N" or "S" or "P"

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eolf-seql

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<223> Any amino acid residue having a side chain exhibiting a hydrophobicity of greater than 0.62

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<222> (6)..(6)

<223> Any amino acid residue having a side chain exhibiting a hydrophobicity of greater than 0.62

<220>

<221> VARIANT

<222> (7)..(7)

<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>

<221> VARIANT

<222> (8)..(8)

<223> /replace="R" or "Q"

<220>

<221> VARIANT

<222> (9)..(9)

<223> /replace="L" or "R" or "M" or "K" or "E"

<220>

<221> MOD_RES

<222> (10)..(10)

<223> Any amino acid residue having a side chain exhibiting a hydrophobicity of greater than 0.62

<220>

<221> VARIANT

<222> (11)..(11)

<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"

eolf-seql
or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>

<221> VARIANT

<222> (12)..(12)

<223> /replace="L" or "A" or "W" or "F" or "K"

<220>

<221> MOD_RES

<222> (13)..(13)

<223> Any amino acid residue having a side chain exhibiting a hydrophobicity of greater than 0.62

<220>

<221> VARIANT

<222> (14)..(14)

<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>

<221> VARIANT

<222> (15)..(15)

<223> /replace="Q" or "H"

<220>

<221> MOD_RES

<222> (16)..(45)

<223> Any amino acid or not present

<220>

<221> MISC_FEATURE

<222> (16)..(45)

<223> /note="This region may encompass 1 to 30 amino acid residues"

<220>

<221> VARIANT

<222> (46)..(46)

<223> /replace="T" or "N" or "S" or "P"

<220>

<221> VARIANT

<222> (47)..(47)

<223> /replace="P" or "Q" or "W" or "D"

<220>

<221> MOD_RES

<222> (48)..(48)

<223> Any amino acid residue having a side chain exhibiting a hydrophobicity of greater than 0.62

<220>

<221> VARIANT

eolf-seql

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<222> (49)..(49)
<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
      or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
<221> VARIANT
<222> (50)..(50)
<223> /replace="A" or "I" or "Q" or "R"

<220>
<221> MOD_RES
<222> (51)..(51)
<223> Any amino acid residue having a side chain exhibiting a
      hydrophobicity of greater than 0.62

<220>
<221> VARIANT
<222> (52)..(52)
<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
      or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
<221> VARIANT
<222> (53)..(53)
<223> /replace="R" or "Q"

<220>
<221> VARIANT
<222> (54)..(54)
<223> /replace="L" or "R" or "M" or "K" or "E"

<220>
<221> MOD_RES
<222> (55)..(55)
<223> Any amino acid residue having a side chain exhibiting a
      hydrophobicity of greater than 0.62

<220>
<221> VARIANT
<222> (56)..(56)
<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
      or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
<221> VARIANT
<222> (57)..(57)
<223> /replace="L" or "A" or "W" or "F" or "K"

<220>
<221> MOD_RES
<222> (58)..(58)
<223> Any amino acid residue having a side chain exhibiting a

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eolf-seql
hydrophobicity of greater than 0.62

<220>
<221> VARIANT
<222> (59)..(59)
<223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
<221> VARIANT
<222> (60)..(60)
<223> /replace="Q" or "H"

<220>
<221> MISC_FEATURE
<222> (1)..(60)
<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 5
Asp Glu Xaa Ala Met Xaa Ala Glu Ala Xaa Ala Met Xaa Ala Arg Xaa
1 5 10 15

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa
20 25 30

Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Asp Glu Xaa
35 40 45

Ala Met Xaa Ala Glu Ala Xaa Ala Met Xaa Ala Arg
50 55 60

<210> 6
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 6
Gln Gly Val Asp Ser
1 5

eolf-seql

<210> 7
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<220>
 <221> VARIANT
 <222> (4)..(4)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (7)..(7)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (8)..(8)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (11)..(11)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (14)..(14)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (15)..(15)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (24)..(24)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M" or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

eolf-seql

<220>
 <221> VARIANT
 <222> (27)..(27)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
 or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (28)..(28)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
 or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (31)..(31)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
 or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (34)..(34)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
 or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> VARIANT
 <222> (35)..(35)
 <223> /replace="D" or "E" or "F" or "H" or "I" or "K" or "L" or "M"
 or "N" or "Q" or "R" or "S" or "T" or "V" or "W" or "Y"

<220>
 <221> MISC_FEATURE
 <222> (1)..(35)
 <223> /note="Variant residues given in the sequence have no
 preference with respect to those in the annotations
 for variant positions"

<400> 7
 Asp Glu Leu Ala Gln Leu Ala Ala Glu Leu Ala Lys Leu Ala Ala Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ala Ala Leu Ala Ala Lys Leu Ala Met
 20 25 30

Leu Ala Ala
 35

<210> 8

eolf-seql

<211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 8
 Asp Glu Leu Ala Gln Leu Glu Arg Glu Leu Met Lys Leu Lys Ala Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Glu Ala Leu Ala Arg Lys Leu Ala Met
 20 25 30

Leu Ala Arg
 35

<210> 9
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<220>
 <221> VARIANT
 <222> (4)..(4)
 <223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L" or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
 <221> VARIANT
 <222> (7)..(7)
 <223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L" or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
 <221> VARIANT
 <222> (8)..(8)
 <223> /replace="Q" or "E"

<220>
 <221> VARIANT

eolf-seql

<222> (11)..(11)
<223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L"
or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
<221> VARIANT
<222> (14)..(14)
<223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L"
or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
<221> VARIANT
<222> (15)..(15)
<223> /replace="Q" or "H"

<220>
<221> VARIANT
<222> (24)..(24)
<223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L"
or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
<221> VARIANT
<222> (27)..(27)
<223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L"
or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
<221> VARIANT
<222> (28)..(28)
<223> /replace="Q" or "E"

<220>
<221> VARIANT
<222> (31)..(31)
<223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L"
or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
<221> VARIANT
<222> (34)..(34)
<223> /replace="R" or "N" or "D" or "E" or "Q" or "H" or "I" or "L"
or "K" or "M" or "F" or "S" or "T" or "W" or "Y" or "V"

<220>
<221> VARIANT
<222> (35)..(35)
<223> /replace="Q" or "H"

<220>
<221> MISC_FEATURE
<222> (1)..(35)

eolf-seql

<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 9

Asp Glu Leu Ala Gln Leu Ala Arg Glu Leu Ala Lys Leu Ala Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ala Ala Leu Ala Arg Lys Leu Ala Met
20 25 30

Leu Ala Arg
35

<210> 10

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 10

Asp Glu Leu Ala Gln Leu Leu Glu Glu Leu Phe Lys Leu Glu Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ile Ala Leu Trp Arg Lys Leu Ser Met
20 25 30

Leu Trp Gln
35

<210> 11

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 11

Asp Glu Leu Ala Gln Leu Gln Glu Glu Leu Gln Lys Leu His Gln Gln

eolf-seql

1 5 10 15

Gly Val Asp Ser Asp Glu Leu Leu Ala Leu Asn Arg Lys Leu Arg Met
 20 25 30

Leu Gln Arg
 35

<210> 12
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 12
 Asp Glu Leu Asp Gln Leu Phe Glu Glu Leu Arg Lys Leu Asn Arg Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ser Ala Leu Arg Glu Lys Leu Glu Met
 20 25 30

Leu Leu Gln
 35

<210> 13
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 13
 Asp Glu Leu Asp Gln Leu His Glu Glu Leu Asp Lys Leu Phe Gln Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ser Ala Leu Ser Glu Lys Leu Lys Met
 20 25 30

eolf-seql

Leu Ser Gln
35

<210> 14
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 14
Asp Glu Leu Glu Gln Leu Ala Arg Glu Leu Ala Lys Leu Tyr Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Glu Ala Leu Trp Glu Lys Leu Gln Met
20 25 30

Leu Arg Gln
35

<210> 15
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 15
Asp Glu Leu Glu Gln Leu Asp Gln Glu Leu His Lys Leu Tyr Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Val Ala Leu Ser Arg Lys Leu Asp Met
20 25 30

Leu Ile Arg
35

<210> 16

eolf-seql

<211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 16
 Asp Glu Leu Phe Gln Leu Ala Glu Glu Leu Lys Lys Leu Asp His Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ile Ala Leu Arg Gln Lys Leu Arg Met
 20 25 30

Leu Phe His
 35

<210> 17
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 17
 Asp Glu Leu Phe Gln Leu Thr Gln Glu Leu Ala Lys Leu Tyr His Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Asp Ala Leu His Glu Lys Leu Glu Met
 20 25 30

Leu Asn Gln
 35

<210> 18
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source

eolf-seql

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 18

Asp Glu Leu His Gln Leu Glu Glu Glu Leu Glu Lys Leu Ser Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ile Ala Leu Ile Arg Lys Leu Ile Met
20 25 30

Leu Met Arg
35

<210> 19

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 19

Asp Glu Leu His Gln Leu His Glu Glu Leu Ile Lys Leu Ile His Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Asn Ala Leu Trp Arg Lys Leu Glu Met
20 25 30

Leu His His
35

<210> 20

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 20

Asp Glu Leu Ile Gln Leu Ala Glu Glu Leu Thr Lys Leu His His Gln
1 5 10 15

eolf-seql

Gly Val Asp Ser Asp Glu Leu Ala Ala Leu Met Glu Lys Leu Lys Met
 20 25 30

Leu Arg Gln
 35

<210> 21
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 21
 Asp Glu Leu Ile Gln Leu Phe Gln Glu Leu Phe Lys Leu Ser His Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Thr Ala Leu Lys Arg Lys Leu Phe Met
 20 25 30

Leu Lys His
 35

<210> 22
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 22
 Asp Glu Leu Lys Gln Leu Asn Glu Glu Leu Glu Lys Leu Val Gln Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Gln Ala Leu Asp Arg Lys Leu Ala Met
 20 25 30

eolf-seql

Leu Asn Gln
35

<210> 23
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 23
Asp Glu Leu Lys Gln Leu Tyr Gln Glu Leu Val Lys Leu His His Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ala Ala Leu Trp Arg Lys Leu Asn Met
20 25 30

Leu Tyr Arg
35

<210> 24
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 24
Asp Glu Leu Leu Gln Leu Asp Glu Glu Leu Ser Lys Leu Met Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Asp Ala Leu Gln Glu Lys Leu Thr Met
20 25 30

Leu Glu His
35

<210> 25
<211> 35

eolf-seql

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 25

Asp	Glu	Leu	Leu	Gln	Leu	Ile	Glu	Glu	Leu	Thr	Lys	Leu	Arg	His	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Met	Ala	Leu	Ala	Arg	Lys	Leu	His	Met
			20					25					30		

Leu	Thr	Gln
		35

<210> 26

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 26

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

Gly	Val	Asp	Ser	Asp	Glu	Leu	Leu	Ala	Leu	His	Glu	Lys	Leu	Ser	Met
			20					25					30		

Leu	Tyr	His
		35

<210> 27

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

eolf-seql

polypeptide"

<400> 27

Asp Glu Leu Met Gln Leu His Gln Glu Leu Lys Lys Leu Gln His Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Phe Ala Leu Leu Glu Lys Leu Met Met
20 25 30

Leu Trp Arg
35

<210> 28

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 28

Asp Glu Leu Asn Gln Leu Ala Glu Glu Leu Lys Lys Leu Thr Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Met Ala Leu Gln Glu Lys Leu Asn Met
20 25 30

Leu Phe Gln
35

<210> 29

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 29

Asp Glu Leu Gln Gln Leu Lys Gln Glu Leu Arg Lys Leu Lys Gln Gln
1 5 10 15

eolf-seql

Gly Val Asp Ser Asp Glu Leu Thr Ala Leu Glu Arg Lys Leu Ile Met
20 25 30

Leu Thr Arg
35

<210> 30
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 30
Asp Glu Leu Gln Gln Leu Leu Glu Glu Leu Asp Lys Leu Met Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Glu Ala Leu Gln Gln Lys Leu Glu Met
20 25 30

Leu Trp Gln
35

<210> 31
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 31
Asp Glu Leu Arg Gln Leu Ala Glu Glu Leu Val Lys Leu Glu Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Gln Ala Leu Arg Gln Lys Leu Leu Met
20 25 30

Leu Thr Gln

35

<210> 32
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 32
 Asp Glu Leu Arg Gln Leu Asp Glu Glu Leu Lys Lys Leu Thr His Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Arg Ala Leu Tyr Glu Lys Leu Asp Met
 20 25 30

Leu Ala His
 35

<210> 33
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 33
 Asp Glu Leu Ser Gln Leu Asp Glu Glu Leu Gln Lys Leu Ser Arg Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Glu Ala Leu Met Glu Lys Leu Ser Met
 20 25 30

Leu Met His
 35

<210> 34
 <211> 35
 <212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 34

Asp	Glu	Leu	Ser	Gln	Leu	Glu	Glu	Glu	Leu	Phe	Lys	Leu	His	Arg	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Asp	Ala	Leu	Glu	Glu	Lys	Leu	Ile	Met
			20					25					30		

Leu	Val	His
		35

<210> 35

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 35

Asp	Glu	Leu	Thr	Gln	Leu	Ala	Glu	Glu	Leu	Ser	Lys	Leu	Glu	Gln	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Ile	Ala	Leu	Ile	Arg	Lys	Leu	His	Met
			20					25					30		

Leu	Thr	Gln
		35

<210> 36

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

eolf-seql

<400> 36

Asp Glu Leu Thr Gln Leu Lys Glu Glu Leu Lys Lys Leu Leu His Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Trp Ala Leu Leu Glu Lys Leu Arg Met
20 25 30

Leu Met Gln
35

<210> 37

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 37

Asp Glu Leu Val Gln Leu Asn Glu Glu Leu Lys Lys Leu Phe His Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Met Ala Leu Ile Glu Lys Leu Lys Met
20 25 30

Leu Arg Gln
35

<210> 38

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 38

Asp Glu Leu Trp Gln Leu Ala Glu Glu Leu Arg Lys Leu Met Arg Gln
1 5 10 15

eolf-seql

Gly Val Asp Ser Asp Glu Leu Met Ala Leu Trp Gln Lys Leu Val Met
 20 25 30

Leu Met Gln
 35

<210> 39
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 39
 Asp Glu Leu Trp Gln Leu His Glu Glu Leu Asp Lys Leu Lys Arg Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Gln Ala Leu Val Glu Lys Leu Lys Met
 20 25 30

Leu Met His
 35

<210> 40
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 40
 Asp Glu Leu Tyr Gln Leu Glu Gln Glu Leu Asn Lys Leu Phe His Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Lys Ala Leu Ile Arg Lys Leu Val Met
 20 25 30

Leu Asp His
 35

eolf-seql

<210> 41
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
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<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 41
Asp Glu Leu Tyr Gln Leu Phe Gln Glu Leu Leu Lys Leu Leu His Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Asn Ala Leu Glu Gln Lys Leu Trp Met
20 25 30

Leu Val Arg
35

<210> 42
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic 6xHis tag"

<400> 42
His His His His His His
1 5

<210> 43
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 43
Asp Glu Leu Met Gln Leu Met Glu Glu Leu Val Lys Leu Asn Gln Gln

eolf-seql

1 5 10 15

Gly Val Asp Ser Asp Glu Leu Trp Ala Leu His Gln Lys Leu Leu Met
 20 25 30

Leu Ser His
 35

<210> 44

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 44

Asp Glu Leu Ser Gln Leu Met Glu Glu Leu Glu Lys Leu Asn Arg Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Trp Ala Leu His Gln Lys Leu Leu Met
 20 25 30

Leu Thr His
 35

<210> 45

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 45

Asp Glu Leu Ser Gln Leu Met Gln Glu Leu Thr Lys Leu Asn Gln Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Tyr Ala Leu His Gln Lys Leu Leu Met
 20 25 30

eolf-seql

Leu Thr His
35

<210> 46
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 46
Asp Glu Leu His Gln Leu Ala Glu Glu Leu Trp Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Glu Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His
35

<210> 47
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 47
Asp Glu Leu Ala Gln Leu Ala Glu Glu Leu Arg Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Trp Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Ser His
35

<210> 48

eolf-seql

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 48

Asp	Glu	Leu	Phe	Gln	Leu	Ala	Glu	Glu	Leu	Lys	Lys	Leu	Asn	Gln	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Ala	Ala	Leu	His	Gln	Lys	Leu	Leu	Met
			20					25					30		

Leu	Thr	His
		35

<210> 49

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 49

Asp	Glu	Leu	Leu	Gln	Leu	Ala	Glu	Glu	Leu	Asp	Lys	Leu	Asn	Arg	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Phe	Ala	Leu	His	Gln	Lys	Leu	Leu	Met
			20					25					30		

Leu	Thr	His
		35

<210> 50

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

eolf-seql

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 50

Asp Glu Leu Thr Gln Leu Ala Glu Glu Leu Val Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Phe Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His
35

<210> 51

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 51

Asp Glu Leu Tyr Gln Leu Ile Glu Glu Leu Glu Lys Leu Asn Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ala Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His
35

<210> 52

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 52

Asp Glu Leu Asp Gln Leu Ile Glu Glu Leu Thr Lys Leu Asn Arg Gln
1 5 10 15

eolf-seql

Gly Val Asp Ser Asp Glu Leu Phe Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Ser His
35

<210> 53
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 53
Asp Glu Leu Leu Gln Leu Ser Glu Glu Leu Tyr Lys Leu Asn Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Trp Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Ser His
35

<210> 54
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 54
Asp Glu Leu Asn Gln Leu Met Glu Glu Leu Val Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Trp Ala Leu His Gln Lys Leu Leu Met
20 25 30

eolf-seql

Leu Ser His
35

<210> 55
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 55
Asp Glu Leu Arg Gln Leu Met Glu Glu Leu Lys Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Gln Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His
35

<210> 56
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 56
Asp Glu Leu Ala Gln Leu Ala Glu Glu Leu Arg Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Tyr Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Ser His
35

<210> 57
<211> 35

eolf-seql

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 57

Asp	Glu	Leu	Ala	Gln	Leu	Ile	Glu	Glu	Leu	Tyr	Lys	Leu	Glu	Gln	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Asp	Ala	Leu	His	Gln	Lys	Leu	Ile	Met
			20					25					30		

Leu	Tyr	Arg
		35

<210> 58

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 58

Asp	Glu	Leu	Asp	Gln	Leu	Glu	Glu	Glu	Leu	Trp	Lys	Leu	Asn	Gln	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Glu	Ala	Leu	His	Gln	Lys	Leu	Leu	Met
				20				25					30		

Leu	Thr	His
		35

<210> 59

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic

eolf-seql

polypeptide"

<400> 59

Asp Glu Leu Leu Gln Leu Ser Glu Glu Leu Tyr Lys Leu Asn Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Tyr Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His
35

<210> 60

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 60

Asp Glu Leu Met Gln Leu Phe Glu Glu Leu Thr Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Tyr Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His
35

<210> 61

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 61

Asp Glu Leu Met Gln Leu Met Glu Glu Leu Val Lys Leu Asn Gln Gln
1 5 10 15

eolf-seql

Gly Val Asp Ser Asp Glu Leu Phe Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His
35

<210> 62
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 62
Asp Glu Leu Gln Gln Leu Lys Glu Glu Leu Thr Lys Leu Asn Gln Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Tyr Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Tyr His
35

<210> 63
<211> 35
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 63
Asp Glu Leu Ser Gln Leu Met Glu Glu Leu Glu Lys Leu Asn Arg Gln
1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ala Ala Leu His Gln Lys Leu Leu Met
20 25 30

Leu Thr His

35

<210> 64
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 64
 Asp Glu Leu Ser Gln Leu Met Glu Glu Leu Glu Lys Leu Asn Arg Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Phe Ala Leu His Gln Lys Leu Leu Met
 20 25 30

Leu Ser His
 35

<210> 65
 <211> 35
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 65
 Asp Glu Leu Thr Gln Leu Ala Glu Glu Leu Lys Lys Leu Asn Gln Gln
 1 5 10 15

Gly Val Asp Ser Asp Glu Leu Ala Ala Leu His Gln Lys Leu Leu Met
 20 25 30

Leu Ser His
 35

<210> 66
 <211> 35
 <212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 66

Asp	Glu	Leu	Val	Gln	Leu	Arg	Gln	Glu	Leu	Ala	Lys	Leu	Ile	His	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Glu	Ala	Leu	Tyr	Arg	Lys	Leu	Met	Met
			20					25					30		

Leu	Glu	Gln
		35

<210> 67

<211> 35

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 67

Asp	Glu	Leu	Tyr	Gln	Leu	Ile	Glu	Glu	Leu	Glu	Lys	Leu	Asn	Arg	Gln
1				5					10					15	

Gly	Val	Asp	Ser	Asp	Glu	Leu	Ala	Ala	Leu	His	Gln	Lys	Leu	Leu	Met
			20					25					30		

Leu	Ser	His
		35