

SEQUENCE LISTING

<110> TENEOBIO, INC.

<120> TRANSGENIC NON-HUMAN ANIMALS PRODUCING MODIFIED HEAVY CHAIN-ONLY ANTIBODIES

<130> TNO-0001-WO

<140>

<141>

<150> 62/379,075

<151> 2016-08-24

<160> 58

<170> PatentIn version 3.5

<210> 1

<211> 27

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<400> 1

gtattacaca caaatggga aaagctg

27

<210> 2

<211> 32

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<400> 2

ccggtagtca aagtagtcac attgtgggag gc

32

<210> 3

<211> 64

<212> DNA

<213> Artificial Sequence

SEQUENCE LISTING

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

<400> 3
 ccttaatggg gcctcccaca atgtgactac tttgactacc ggggccaggg aaccctggtc 60
 accg 64

<210> 4
 <211> 27
 <212> DNA
 <213> Artificial Sequence

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

<400> 4
 gaatcctagg attgccttct tagcctg 27

<210> 5
 <211> 176
 <212> DNA
 <213> Artificial Sequence

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

<400> 5
 ccatagacca aacttaccta ctatctagtc ctgccaacct taagagcagc aacatggaga 60
 cagcagagtg tagagagatc tcctgactgg caggaggcaa gaagatggat tcttactcgt 120
 ccatttctct tttatccctc tctggctcta gagaacaacc aggggatgag gggctc 176

<210> 6
 <211> 208
 <212> DNA
 <213> Artificial Sequence

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

SEQUENCE LISTING

<400> 6
gcacaagtgg acaaagtctt tggccagtct agaaagaagc ccgtctcaga gatcaaagct 60
ggagggcaac acaggaaaga tgtgggaata agtttactag tcatacaggc aggaacccca 120
ggcccagagg tagtgtccct gtgggagggt ctcttgctct ctgatgtcct tccatgctga 180
gagttagggc cttgtccaa tcatgttc 208

<210> 7
<211> 71
<212> DNA
<213> Artificial Sequence

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

<400> 7
gaattttgcc caagtttttt cagcttttcc catttttgtgt gtaatacgta cacaccgcag 60
ggtaataact g 71

<210> 8
<211> 74
<212> DNA
<213> Artificial Sequence

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

<400> 8
gacgggcttc tttctagact ggccaaagac tttgtccact tgtgcgcagt tatctatgct 60
gtctcaccat agag 74

<210> 9
<211> 26
<212> DNA
<213> Artificial Sequence

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

SEQUENCE LISTING

<400> 9
ggaggtctag gctggagctg atccag 26

<210> 10
<211> 51
<212> DNA
<213> Artificial Sequence

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

<400> 10
cctcgtcccc tggttgttct ctcaagaaaa agtatgcgtg atcattttgt c 51

<210> 11
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 11
agagaacaac caggggacga gg 22

<210> 12
<211> 27
<212> DNA
<213> Artificial Sequence

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

<400> 12
gtccacatag tcctccagag agagaag 27

<210> 13
<211> 27
<212> DNA
<213> Artificial Sequence

SEQUENCE LISTING

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

 <400> 13
 gaccaagtc cagttcccaa caaccac 27

 <210> 14
 <211> 50
 <212> DNA
 <213> Artificial Sequence

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

 <400> 14
 cctcgtcccc tggttgtcct ctcaagagag gagggagtgt gagcttttcc 50

 <210> 15

 <400> 15
 000

 <210> 16
 <211> 27
 <212> DNA
 <213> Artificial Sequence

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

 <400> 16
 agaggacaac caggggacga ggggctc 27

 <210> 17
 <211> 27
 <212> DNA
 <213> Artificial Sequence

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

SEQUENCE LISTING

<400> 17
gcatggggaa ggggcattgt atgtagg 27

<210> 18
<211> 26
<212> DNA
<213> Artificial Sequence

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

<400> 18
cagatcacac tgtctgctca cttcac 26

<210> 19
<211> 27
<212> DNA
<213> Artificial Sequence

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

<400> 19
aaggcagcag gatggaagct gatgtcg 27

<210> 20
<211> 124
<212> DNA
<213> Artificial Sequence

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

<400> 20
gctggagggc aacacaggaa agatgtggga ataagtttac tagtcataca ggcaggaacc 60

ccaggcccag aggtagtgtc cctgtgggag ggtctcttgc gcacacaccg cagggttaata 120

actg 124

<210> 21

SEQUENCE LISTING

<211> 91
 <212> DNA
 <213> Artificial Sequence

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

 <400> 21
 gatttaaagt tcaattgggtg agtcttctgg ggcttcctac atacaatgcc ctttcccat 60

 gcgcagttat ctatgctgtc tcacataga g 91

 <210> 22
 <211> 39
 <212> DNA
 <213> Artificial Sequence

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

 <400> 22
 atgagcagca ccctctcgtt gaccaaggct gactatgaa 39

 <210> 23
 <211> 33
 <212> DNA
 <213> Artificial Sequence

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

 <400> 23
 caggtgtgcc catccagctg agttaagggtg gag 33

 <210> 24
 <211> 39
 <212> DNA
 <213> Artificial Sequence

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

SEQUENCE LISTING

<400> 24
caggaccagg acacctgcag cagctggcag gaagcaggt 39

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

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

<400> 25
aacagccatt tgcagaccaa agggaaggaa aga 33

<210> 26
<211> 42
<212> DNA
<213> Artificial Sequence

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

<400> 26
ttctaccctg gtgttatgac agtggctctgg aaggcagatg gt 42

<210> 27
<211> 22
<212> DNA
<213> Artificial Sequence

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

<400> 27
atggactgga cctggaggat cc 22

<210> 28
<211> 22
<212> DNA
<213> Artificial Sequence

SEQUENCE LISTING

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

 <400> 28
 atggactgca cctggaggat cc 22

 <210> 29
 <211> 20
 <212> DNA
 <213> Artificial Sequence

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

 <400> 29
 tccacgctcc tgctgctgac 20

 <210> 30
 <211> 23
 <212> DNA
 <213> Artificial Sequence

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

 <400> 30
 gctacacact cctgctgctg acc 23

 <210> 31
 <211> 21
 <212> DNA
 <213> Artificial Sequence

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

 <400> 31
 atggagtttg ggctgagctg g 21

 <210> 32

SEQUENCE LISTING

<211> 20
 <212> DNA
 <213> Artificial Sequence

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

 <400> 32
 atggaattgg ggctgagctg 20

 <210> 33
 <211> 22
 <212> DNA
 <213> Artificial Sequence

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

 <400> 33
 atggagttgg gactgagctg ga 22

 <210> 34
 <211> 21
 <212> DNA
 <213> Artificial Sequence

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

 <400> 34
 atggaatttg gcctgagctg g 21

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

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

 <400> 35

SEQUENCE LISTING

atgcagtttg tgctgagctg g 21

<210> 36
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 36
tgaaacacct gtggttcttc c 21

<210> 37
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 37
tgaagcacct gtggttcttc c 21

<210> 38
<211> 21
<212> DNA
<213> Artificial Sequence

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

<400> 38
tcattcttcct gcccgtgctg g 21

<210> 39
<211> 30
<212> DNA
<213> Artificial Sequence

<220>
<221> source

SEQUENCE LISTING

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

<400> 39

gctttcagtg atggtcagtg tgcttatgac

30

<210> 40

<211> 48

<212> DNA

<213> Artificial Sequence

<220>

<221> source

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

<400> 40

actactttga ctacyggggc cagggaaccc tggtcaccgt ctcctcag

48

<210> 41

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<220>

<221> VARIANT

<222> (5)..(5)

<223> /replace="Arg"

<220>

<221> MISC_FEATURE

<222> (5)..(5)

<223> /note="Residue given in the sequence has no preference with respect to that in the annotations for said position"

<400> 41

Tyr Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

1

5

10

15

<210> 42

<211> 52

<212> DNA

<213> Artificial Sequence

SEQUENCE LISTING

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

<400> 42
 gctgaatact tccagcaccg gggccagggc accctgggtca ccgtctcctc ag 52

<210> 43
 <211> 53
 <212> DNA
 <213> Artificial Sequence

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

<400> 43
 ctactggtac ttcgatctcc ggggccgtgg caccctgggtc actgtctcct cag 53

<210> 44
 <211> 50
 <212> DNA
 <213> Artificial Sequence

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

<400> 44
 tgatgctttt gatatccggg gccaaaggac aatgggtcacc gtctcttcag 50

<210> 45
 <211> 48
 <212> DNA
 <213> Artificial Sequence

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

<400> 45
 actactttga ctaccggggc cagggaaccc tggtcaccgt ctcttcag 48

SEQUENCE LISTING

<210> 46
 <211> 51
 <212> DNA
 <213> Artificial Sequence

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

 <400> 46
 acaactgggtt cgacccccgg ggccagggaa ccctgggtcac cgtctcctca g 51

 <210> 47
 <211> 63
 <212> DNA
 <213> Artificial Sequence

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

 <400> 47
 attactacta ctactactac atggacgtcc ggggcaaagg gaccacggtc accgtctcct 60
 cag 63

 <210> 48
 <211> 120
 <212> PRT
 <213> Artificial Sequence

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

 <400> 48
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30

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

SEQUENCE LISTING

Ser Thr Val Ser Gly Thr Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 49

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 49

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Arg Leu Tyr
65 70 75 80

SEQUENCE LISTING

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Arg Phe Gly Ser Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 50

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 50

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

Ser Thr Val Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Lys Trp Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser

SEQUENCE LISTING

115

120

<210> 51

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 51

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

Ser Thr Val Ser Gly Thr Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Gln Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 52

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

SEQUENCE LISTING

<221> source

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

<400> 52

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

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

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Ser
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 53

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 53

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

SEQUENCE LISTING

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

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

Ser Ala Val Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Ser
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Phe Cys
85 90 95

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 54

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 54

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

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

Ser Thr Val Ser Gly Thr Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val

SEQUENCE LISTING

50

55

60

Gln Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 55

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 55

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Ala Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

SEQUENCE LISTING

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 56

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<221> source

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

<400> 56

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Glu
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Trp Ala Pro Gly Thr Gly Leu Glu Trp Val
35 40 45

Ser Thr Val Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Glu Tyr Tyr Cys
85 90 95

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

SEQUENCE LISTING

<210> 57
 <211> 120
 <212> PRT
 <213> Artificial Sequence

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

<400> 57
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Phe Ser Ser Tyr
 20 25 30

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

Ser Ala Ile Ser Gly Ser Gly Gly Arg Thr Tyr Tyr Ala Asp Ser Val
 50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Ser
 65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Ser Cys
 85 90 95

Ala Lys Asp Arg Phe Gly Thr Gly Thr Asn Phe Asp Tyr Trp Gly Gln
 100 105 110

Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 58
 <211> 120
 <212> PRT
 <213> Artificial Sequence

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

SEQUENCE LISTING

polypeptide"

<400> 58

Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20 25 30

Ala Met Ser Trp Val Arg Leu Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ser Thr Val Ser Gly Thr Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Ser Cys
85 90 95

Ala Lys Asp Arg Phe Gly Ser Gly Thr Asn Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120