

PCTIL2017050256-seq1-000001-EN
SEQUENCE LISTING

<110> Yissum Research Development Company of the Hebrew
University of Jerusalem Ltd.
University of Rijeka Faculty of Medicine

<120> ANTIBODIES SPECIFIC TO HUMAN POLIOVIRUS RECEPTOR (PVR)

<130> Yissum/0137 PCT

<150> US 62/301727

<151> 2016-03-01

<150> US 62/364924

<151> 2016-07-21

<160> 86

<170> PatentIn version 3.5

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

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

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

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 35 40 45

Trp Ile Gly Gly Ile Asp Pro Asn Asn Gly Gly Thr Asn Tyr Asn Gln
 50 55 60

Asn Phe Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr
 65 70 75 80

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

Tyr Cys Ala Gly Val Ile Pro Leu Glu Tyr Trp Gly Gln Gly Thr Ser
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Val Thr Val Ser Ser Ala Lys Thr Thr Pro Pro Ser Val Tyr Val Asp
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Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Ile
 35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Arg Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80

Glu Asp Leu Ala Asp Tyr Phe Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
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Pro Thr Val Ser Val Asp
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 35 40 45

Ile Phe Pro Gly Ser Gly Arg Ile Asn Phe Asn Glu Lys Phe Lys Gly
 50 55 60

Lys Ala Thr Phe Thr Ala Asp Thr Ser Ser Asp Thr Thr Tyr Met Gln
 65 70 75 80

Leu Ser Ser Leu Thr Ser Ala Asp Ser Ala Val Tyr Tyr Cys Ala Arg
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Thr Lys Ile Tyr Gly Asn Ser Phe Asp Tyr Trp Gly Gln Gly Thr Thr
 100 105 110

Leu Thr Val
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 35 40 45

Tyr Trp Ala Ser Ser Arg His Asn Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
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Glu Asp Leu Ser Asp Tyr Phe Cys Gln Gln Tyr Ser Arg Tyr Pro Leu
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Val Val Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Trp Ala Ser Ser Arg His Ala Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

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Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
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Glu Asp Leu Ser Asp Tyr Phe Cys Gln Gln Tyr Ser Arg Tyr Pro Leu
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20 25 30

Val Val Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

Tyr Trp Ala Ser Ser Arg His Arg Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80

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

Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105

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 20 25 30

Val Val Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Trp Ala Ser Ser Arg His Asp Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
 65 70 75 80

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

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 20 25 30

Val Val Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Trp Ala Ser Ser Arg His Glu Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
 65 70 75 80

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

Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
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35 40 45

Tyr Trp Ala Ser Ser Arg His Pro Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
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Glu Asp Leu Ser Asp Tyr Phe Cys Gln Gln Tyr Ser Arg Tyr Pro Leu
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35 40 45

Tyr Trp Ala Ser Ser Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
65 70 75 80

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atcacttgca aggcgagtca ggatgtgggt actgctgtgg tctggatatca gcagaaacca	120
gggcaatctc ctaagttgct gatctattgg gcatccagtc ggcaccctgg ggtcccagat	180
aggttcacag gcagtggatc tgggacagat ttcactctca ccatcagcaa tgtgcagtct	240
gaagatttgt cagattatit ctgccaacag tatagcagat accctctcac attcggggct	300
gggaccaagc tggagctcaa a	321

<210> 67
 <211> 321
 <212> DNA
 <213> Artificial sequence

<220>
 <223> Mutated polynucleotide

<400> 67	
gacatcatga tgaccagtc tcacaaattc atgtctacat ctgtaggaga cagagtcaac	60
atcacttgca aggcgagtca ggatgtgggt actgctgtgg tctggatatca gcagaaacca	120
gggcaatctc ctaagttgct gatctattgg gcatccagtc ggcacactgg ggtcccagat	180

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aggttcacag gcagtggatc tgggacagat ttactctca ccatcagcaa tgtgcagtct 240
gaagatttgt cagattatct ctgccaacag tatagcagat accctctcac attcggggct 300
gggaccaagc tggagctcaa a 321

<210> 68
<211> 356
<212> DNA
<213> Mus musculus

<400> 68
gaggtgaagc ttctcgagtc tggaggtggc ctggtgcagc ctggaggatc cctgaaactc 60
tcctgtgcag cctcaggatt cgattttagt agatactgga tgacttgggt ccggcaggct 120
ccagggaaaag ggctagaatg gattggagaa attcatccag atagcagtaa gataaactat 180
acgccatctc aaaaggataa attcatcatc tccagagaca acgcaaaaaa tacgctgttc 240
ctgcaaatga gcaaagttag atttgaggac acagcccttt atttctgtgc aagacctgat 300
ggtaactaca atgctctgga ctactggggg caaggaacct cagtcaccgt ctcctc 356

<210> 69
<211> 119
<212> PRT
<213> Mus musculus

<400> 69

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Asp Phe Ser Arg Tyr
20 25 30

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

Gly Glu Ile His Pro Asp Ser Ser Lys Ile Asn Tyr Thr Pro Ser Gln
50 55 60

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

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

Ala Arg Pro Asp Gly Asn Tyr Asn Ala Leu Asp Tyr Trp Gly Gln Gly
100 105 110

Thr Ser Val Thr Val Ser Ser
115

<210> 70
<211> 321
<212> DNA
<213> Mus musculus

<400> 70
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atcacctgca aggccagtca ggatgtgggt actgctgtaa cctgggtatca acagaaacca 120
ggacaatctc ctaaactact gatttactgg gcatccaccc ggcacactgg agtcctgat 180
cgcttcacag gcagtgaatc tgggacagat ttactctca ccattagtga tgtgcaatct 240
gaagacttgg caaattatct ctgtcagcaa tatagcaggt atccgtacac gttcggaggg 300
gggaccaagc tggaaataaa a 321

<210> 71
<211> 107
<212> PRT
<213> Mus musculus

<400> 71

Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala

20

25

30

Val Thr Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Glu Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asp Val Gln Ser
 65 70 75 80

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

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 72
 <211> 345
 <212> DNA
 <213> Mus musculus

<400> 72
 gaggtccagc tgcaacagtc tggacctgag ctggtgaagc ctggggcttc agtgaagatt 60
 tcctgcaaga cttctggata cactttcact gaatacacca tgcactgggt gaagcagagc 120
 catggagaga gccttgagtg gattggaggt attgataccta acaatggtgg tactaactac 180
 aaccagaact tcaagggcaa ggccacattg actgtagaca agtcctccag cacagcctac 240
 atggagctcc gcagcctgac atctgaggat tctgcggtct attactgtgc aggagtgatt 300
 cctctggagt actgggggca aggaacctca gtcaccgtct cctca 345

<210> 73
 <211> 115
 <212> PRT
 <213> Mus musculus

<400> 73

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

Ser Val Lys Ile Ser Cys Lys Thr Ser Gly Tyr Thr Phe Thr Glu Tyr
20 25 30

Thr Met His Trp Val Lys Gln Ser His Gly Glu Ser Leu Glu Trp Ile
35 40 45

Gly Gly Ile Asp Pro Asn Asn Gly Gly Thr Asn Tyr Asn Gln Asn Phe
50 55 60

Lys Gly Lys Ala Thr Leu Thr Val Asp Lys Ser Ser Ser Thr Ala Tyr
65 70 75 80

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

Ala Gly Val Ile Pro Leu Glu Tyr Trp Gly Gln Gly Thr Ser Val Thr
100 105 110

Val Ser Ser
115

<210> 74
<211> 321
<212> DNA
<213> Mus musculus

<400> 74
gacattgtga tgacccagtc tcaaaaattc atgtccacat cagtaggaga cagagtcagc 60
gtcacctgca aggccagtca gaatgtgtat actaatgtag cctggatatca acagaaacca 120
gggcaatctc ctaaagcact gatttactcg gcatcctacc ggtacagggg agtcctgat 180
cgcttcacag gcagtggatc tgggacagat ttactctca ccatcagcaa tgtgcagtct 240
gaagacttgg cagactatit ctgtcagcaa tataacagct atcctctcgc gttcggctcg 300

gggacaaaagt tggaaataaa a

321

<210> 75
 <211> 107
 <212> PRT
 <213> Mus musculus

<400> 75

Asp Ile Val Met Thr Gln Ser Gln Lys Phe Met Ser Thr Ser Val Gly
 1 5 10 15

Asp Arg Val Ser Val Thr Cys Lys Ala Ser Gln Asn Val Tyr Thr Asn
 20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Ala Leu Ile
 35 40 45

Tyr Ser Ala Ser Tyr Arg Tyr Arg Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
 65 70 75 80

Glu Asp Leu Ala Asp Tyr Phe Cys Gln Gln Tyr Asn Ser Tyr Pro Leu
 85 90 95

Ala Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 76
 <211> 357
 <212> DNA
 <213> Mus musculus

<400> 76

caggttcagt tgcagcagtc tggagctgag ctgatgaagc ctggggcctc agtgaagatt 60

tcctgcaagg ctactggcta cacattcagt aactactgga ttgagtggat aaaacagagg 120

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cctggacatg gccttgagtg gattggagag atttttcctg gaagtggtcg tattaacttc      180
aatgagaagt tcaagggcaa ggccacattc actgcagaca catcctccga cacaacctac      240
atgcaactca gcagcctgac atctgcggac tctgccgtct attactgtgc aagaacgaag      300
atctatggta actcctttga ctactggggc caaggcacca ctctcacagt ctcccca      357

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<210> 77
<211> 119
<212> PRT
<213> Mus musculus

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<400> 77

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Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Met Lys Pro Gly Ala
1          5          10          15

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Ser Val Lys Ile Ser Cys Lys Ala Thr Gly Tyr Thr Phe Ser Asn Tyr
          20          25          30

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Trp Ile Glu Trp Ile Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
          35          40          45

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```

Gly Glu Ile Phe Pro Gly Ser Gly Arg Ile Asn Phe Asn Glu Lys Phe
          50          55          60

```

```

Lys Gly Lys Ala Thr Phe Thr Ala Asp Thr Ser Ser Asp Thr Thr Tyr
65          70          75          80

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```

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

```

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

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Thr Thr Leu Thr Val Ser Pro
          115

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<210> 78
 <211> 321
 <212> DNA
 <213> Mus musculus

<400> 78
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 ggacaatctc ctaaattatt gatttactgg gcatccagtc ggacacaatgg agtccctgat 180
 cgcttcacag gcagtggatc tgggacagat ttcactctca cgattagtaa tgtgcagtct 240
 gaagacttgt cagattatct ctgtcagcaa tatagcaggt atccactcac attcggggct 300
 gggaccaagc tggagctgaa a 321

<210> 79
 <211> 107
 <212> PRT
 <213> Mus musculus

<400> 79

Asp Ile Met Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
 1 5 10 15

Asp Arg Val Asn Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
 20 25 30

Val Val Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
 35 40 45

Tyr Trp Ala Ser Ser Arg His Asn Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Asn Val Gln Ser
 65 70 75 80

Glu Asp Leu Ser Asp Tyr Phe Cys Gln Gln Tyr Ser Arg Tyr Pro Leu

85

90

95

Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 100 105

<210> 80
 <211> 5
 <212> PRT
 <213> Mus musculus

<400> 80

Arg Tyr Trp Met Thr
 1 5

<210> 81
 <211> 17
 <212> PRT
 <213> Mus musculus

<400> 81

Glu Ile His Pro Asp Ser Ser Lys Ile Asn Tyr Thr Pro Ser Gln Lys
 1 5 10 15

Asp

<210> 82
 <211> 10
 <212> PRT
 <213> Mus musculus

<400> 82

Pro Asp Gly Asn Tyr Asn Ala Leu Asp Tyr
 1 5 10

<210> 83
 <211> 5
 <212> PRT
 <213> Mus musculus

<400> 83

Glu Tyr Thr Met His
1 5

<210> 84

<211> 6

<212> PRT

<213> Mus musculus

<400> 84

Ser Asn Tyr Trp Ile Glu
1 5

<210> 85

<211> 10

<212> PRT

<213> Mus musculus

<400> 85

Lys Ala Ser Gln Asp Val Gly Thr Ala Val
1 5 10

<210> 86

<211> 329

<212> PRT

<213> Homo sapiens

<400> 86

Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser
1 5 10 15

Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe
20 25 30

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

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

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Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
 245 250 255

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 260 265 270

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
 275 280 285

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 290 295 300

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
 305 310 315 320

Lys Ser Leu Ser Leu Ser Pro Gly Lys
 325