

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

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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

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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 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 Arg Ala Asp Ala Ala
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Pro Thr Val Ser Val Asp
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 aagttcaagg gcaaggccac attcactgca gacacatcct ccgacacaac ctacatgcaa 240
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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
 85 90 95

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

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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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

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 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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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 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
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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20 25 30

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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

Glu Asp Leu Ser Asp Tyr Phe Cys Gln Gln Tyr Ser Arg Tyr Pro Leu
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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 gcaaagtgag atttgaggac acagcccttt atttctgtgc aagacctgat 300
ggtaactaca atgctctgga ctactgggggt 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
gacattgtga tgacccagtc tcacaaattc atgtccacat cagtgggaga cagggtcagc 60
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

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

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

<400> 77

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

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

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

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

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

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

Thr Thr Leu Thr Val Ser Pro
115

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

<400> 78
 gacattatga tgacccagtc tcacaaattc atgtccacat cagtaggaga caggggtcaac 60
 atcacctgca aggccagtca ggatgtgggt actgctgtgg tctgggtatca acagaaacca 120
 ggacaatctc ctaaattatt gatttactgg gcatccagtc ggcacaatgg 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