

P-54-636-WO-SEQLIST.ST25-asfiled  
SEQUENCE LISTING

<110> Université de Genève

<120> Modulators of cell adhesion molecules and use thereof

<130> P-54-536-PCT

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<170> PatentIn version 3.3

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aaaaaaaaaa aaaaa	3315

<210> 10  
 <211> 22  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description of Artificial sequence: primer

<400> 10	
ggaattcatg atttggaac gc	22

<210> 11  
 <211> 25  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description of Artificial sequence: primer

<400> 11	
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<210> 12  
 <211> 14  
 <212> DNA  
 <213> Artificial

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<220>
<223> Description of artificial sequence : primer

<400> 12
aggtctatat aagc 14

<210> 13
<211> 23
<212> DNA
<213> Artificial

<220>
<223> Description of Artificial Sequence: primer

<400> 13
ggggtaccag ggccattctg gcc 23

<210> 14
<211> 597
<212> DNA
<213> Homo sapiens

<400> 14
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ttccgagtgg accggagtga tgatggagtg gcggtcatct gcagagtaga tcacgaatcc 120
ctcaatgccca cccctcaggt agccatgcag gtgctagaaa tacactatac accatcagtt 180
aagattatac catcgactcc tttccacaa gaaggacagc ctttaatttt gacttgtgaa 240
tccaaaggaa aaccactgcc agaacctgtt ttgtggacaa aggatggcgg agaattacca 300
gatcctgacc gaatggttgt gagtggtagg gagctaaaca ttcttttcct gaacaaaacg 360
gataatggta catatcgatg tgaagccaca aacaccattg gccaaagcag tgcggaatat 420
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accactgcaa cagtcacaac cactgtagcc ataacaacca gcccaaccac atctgcaaca 540
accagcagca tcagagatcc taatgctttg gctggccaga atggccctga ccatgct 597

<210> 15
<211> 198
<212> PRT
<213> Homo sapiens

<400> 15
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Ser Thr Leu Asp Phe Arg Val Asp Arg Ser Asp Asp Gly Val Ala Val
20 25 30
Ile Cys Arg Val Asp His Glu Ser Leu Asn Ala Thr Pro Gln Val Ala
35 40 45
Met Gln Val Leu Glu Ile His Tyr Thr Pro Ser Val Lys Ile Ile Pro
50 55 60

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Ser Thr Pro Phe Pro Gln Glu Gly Gln Pro Leu Ile Leu Thr Cys Glu  
65 70 75 80

Ser Lys Gly Lys Pro Leu Pro Glu Pro Val Leu Trp Thr Lys Asp Gly  
85 90 95

Gly Glu Leu Pro Asp Pro Asp Arg Met Val Val Ser Gly Arg Glu Leu  
100 105 110

Asn Ile Leu Phe Leu Asn Lys Thr Asp Asn Gly Thr Tyr Arg Cys Glu  
115 120 125

Ala Thr Asn Thr Ile Gly Gln Ser Ser Ala Glu Tyr Val Leu Ile Val  
130 135 140

His Asp Val Pro Asn Thr Leu Leu Pro Thr Thr Ile Ile Pro Ser Leu  
145 150 155 160

Thr Thr Ala Thr Val Thr Thr Thr Val Ala Ile Thr Thr Ser Pro Thr  
165 170 175

Thr Ser Ala Thr Thr Ser Ser Ile Arg Asp Pro Asn Ala Leu Ala Gly  
180 185 190

Gln Asn Gly Pro Asp His  
195

<210> 16  
<211> 18  
<212> DNA  
<213> Artificial

<220>  
<223> Description of Artificial Sequence: primer

<400> 16  
tgaccatgct ctcatagg

18

<210> 17  
<211> 18  
<212> DNA  
<213> Artificial

<220>  
<223> Description of artificial sequence: primer

<400> 17  
tgccagatat cgaccaag

18

<210> 18  
<211> 16  
<212> DNA  
<213> Artificial

<220>  
<223> Description of Artificial Sequence: primer

<400> 18  
tgattctacc cacggc 16

<210> 19  
<211> 21  
<212> DNA  
<213> Artificial

<220>  
<223> Description of Artificial Sequence: primer

<400> 19  
tgatgggttt cccattgatg a 21

<210> 20  
<211> 2173  
<212> DNA  
<213> Artificial

<220>  
<223> Description of Artificial Sequence: mutated clone

<400> 20  
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aacgtgacag tggctgaggg tggggtggct gagatcacct gccgtctgca ccagtatgat 180  
gggtccatag ttgtcatcca gaaccagcc cggcagaccc tcttcttcaa tggcaccctg 240  
gccttgaagg atgagcggtt ccagcttgag gagttctccc cacgccgggt gcggatccgg 300  
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gtccgggagc aggcggtaga gggcggcgag gtggagctca gctgcctcgt tccgcggtcc 480  
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cccaggcaa accagatccg ctggaaccgc gggaatgagt ctttgccgga gagggcggag 840  
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tgcgaggcgt ccaataagca cggccatgcg agggcgctct acgtacttgt ggtctacgac 960  
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tatgaaaata tcagattgca cccccctctc ccattcctg gcttttgccc ctttttctt	2040
gttaaaaaac aaaaaacaaa aaacaaaaaa ccacacacac attttgtacg ggggtggggag	2100
gggaatgggg aggggggttg gcaatctcac taaccacat taaactgagg agagaacaaa	2160
aaaaaaaaaa aaa	2173

<210> 21  
 <211> 24  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 21	
ccccaattga tgggccgggc ccgg	24

<210> 22  
 <211> 38  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description of Artificial Sequence: Primer

<400> 22	
ccccagatct aagatgaaga attcctcttt cctcttgt	38

<210> 23  
 <211> 27  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Definition of Artificial sequence: primer

<400> 23	
cccgcattgca atcctgtggg ggaggtc	27

<210> 24  
 <211> 25

<212> DNA  
<213> Artificial

<220>  
<223> Definition of artificial sequence: primer

<400> 24  
cccctgcagg ggaaccgacg tctga 25

<210> 25  
<211> 591  
<212> DNA  
<213> Homo sapiens

<400> 25  
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gcccggattc atgcctccca agctgtggtg agggagggag acacgctggt gttgacgtgt 360  
gctgtcacgg ggaaccccag gccaaaccag atccgctgga accgcgggaa tgagtctttg 420  
ccggagaggg cggaggccgt gggagagacg ctacgctgc cgggtctggt atccgcggat 480  
aacggcacct acacttgca ggcgtccaat aagcacggcc atgcgagggc gctctacgta 540  
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<210> 26  
<211> 197  
<212> PRT  
<213> Homo sapiens

<400> 26

Asn Pro Val Val Glu Val Arg Glu Gln Ala Val Glu Gly Gly Glu Val  
1 5 10 15

Glu Leu Ser Cys Leu Val Pro Arg Ser Arg Pro Ala Ala Thr Leu Arg  
20 25 30

Trp Tyr Arg Asp Arg Lys Glu Leu Lys Gly Val Ser Ser Ser Gln Glu  
35 40 45

Asn Gly Lys Val Trp Ser Val Ala Ser Thr Val Arg Phe Arg Val Asp  
50 55 60

Arg Lys Asp Asp Gly Gly Ile Ile Ile Cys Glu Ala Gln Asn Gln Ala  
65 70 75 80

Leu Pro Ser Gly His Ser Lys Gln Thr Gln Tyr Val Leu Asp Val Gln  
85 90 95

Tyr Ser Pro Thr Ala Arg Ile His Ala Ser Gln Ala Val Val Arg Glu  
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100

105

110

Gly Asp Thr Leu Val Leu Thr Cys Ala Val Thr Gly Asn Pro Arg Pro  
 115 120 125

Asn Gln Ile Arg Trp Asn Arg Gly Asn Glu Ser Leu Pro Glu Arg Ala  
 130 135 140

Glu Ala Val Gly Glu Thr Leu Thr Leu Pro Gly Leu Val Ser Ala Asp  
 145 150 155 160

Asn Gly Thr Tyr Thr Cys Glu Ala Ser Asn Lys His Gly His Ala Arg  
 165 170 175

Ala Leu Tyr Val Leu Val Val Tyr Asp Pro Gly Ala Val Val Glu Ala  
 180 185 190

Gln Thr Ser Val Pro  
 195

<210> 27  
 <211> 20  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description Artificial Sequence: primer

<400> 27  
 gagggcgctc tacgtacttg 20

<210> 28  
 <211> 20  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Definition of Artificial Sequence: primer

<400> 28  
 aaccgacgctc tgagcctcta 20

<210> 29  
 <211> 1680  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description Artificial Sequence: clone

<400> 29  
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 gccagccag ggagccggcc gggaagcgcg atgggggccc cagccgcctc gtcctgctc 120  
 ctgctcctgc tgttgcctg ctgctgggcg cccggcgggg ccaacctctc ccaggacgac 180  
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tcaatcttca	ctatgcctgt	gcgaactgcc	aagtccctcg	tactgtgct	aggaattcca	480
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cggttttgta	ctcggtttgg	aatggggagg	gaggagggcg	gggggagggg	agggttgccc	1500
tcagcccttt	ccgtggcttc	tctgcatttg	ggttattatt	atttttgtaa	caatcccaaa	1560
gcaaactctgt	ctccaggctg	gagaggcagg	agccctgggg	tgagaaaagc	aaaaaaciaa	1620
caaaaaaciaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	aaaaaaaaaa	1680

<210> 30  
 <211> 26  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description Artificial sequence: primer

<400>	30	
ccccaattga	tgggggcccc	agccgc
		26

<210> 31  
 <211> 39  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description Artificial sequence: primer

<400> 31

ccccagatct aagatgaaat attccttctt gtcgtcccc

39

<210> 32  
 <211> 1448  
 <212> DNA  
 <213> Artificial

<220>  
 <223> Description artificial sequence: clone

<400> 32  
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 gcggcagcgg cggcggcggc gcctcccggg ctccggctcc ggcttctgct gttgctcttc 120  
 tccgccgcgg cactgatccc cacagggtgat gggcagaatc tgtttacgaa agacgtgaca 180  
 gtgatcgagg gagaggttgc gaccatcagt tgccaagtca ataagagtga cgactctgtg 240  
 attcagctac tgaatcccaa caggcagacc atttatttca gggacttcag gcctttgaag 300  
 gacagcaggt ttcagttgct gaatttttct agcagtgaac tcaaagtatc attgacaaac 360  
 gtctcaattt ctgatgaagg aagatacttt tgccagctct ataccgatcc cccacaggaa 420  
 agttacacca ccatcacagt cctgggtccca ccacgtaatc tgatgatcga tatccagaaa 480  
 gacactgcgg tggaagggtga ggagattgaa gtcaactgca ctgctatggc cagcaagcca 540  
 gccacgacta tcaggtgggtt caaagggaaac acagagctaa aaggcaaadc ggaggtggaa 600  
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 gatggggtcc cagtgatctg ccagggtggag caccctgcgg tcaactggaaa cctgcagacc 720  
 cagcggatc tagaagtaca gtataagcct caagtgcaca ttcagatgac ttatcctcta 780  
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 tctgggcccac acctgttcat caataaccta aacaaaacag ataatggtac ataccgtgt 960  
 gaagcttcaa acatagtggg gaaagctcac tcggattata tgctgtatgt atacgatccc 1020  
 cccacaacta tccctctctc cacaacaacc accaccacca ccaccaccac caccaccacc 1080  
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 attctggggc gctatttttc cagacataaa ggtacatact tcaactcatga agccaaagga 1260  
 gccgatgacg cagcagacgc agacacagct ataataatg cagaaggagg acagaacaac 1320  
 tccgaagaaa agaaagagta cttcatctag atcagccttt ttgtttcaat gaggtgtcca 1380  
 actggcccta tttagatgat aaagagacag tgatattgaa aaaaaaaaaa aaaaaaaaaa 1440  
 aaaaaaaaaa 1448

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

<220>

<223> Description artificial sequence: primer

<400> 33

ggaattcatg gcgagtgtag tg

22

<210> 34

<211> 25

<212> DNA

<213> Artificial

<220>

<223> Description artificial sequence: primer

<400> 34

cccccaattgc gatgaagtac tcttt

25

<210> 35

<211> 227

<212> PRT

<213> Homo sapiens

<400> 35

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly  
1 5 10 15

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met  
20 25 30

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His  
35 40 45

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val  
50 55 60

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr  
65 70 75 80

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly  
85 90 95

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile  
100 105 110

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val  
115 120 125

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser  
130 135 140

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu  
145 150 155 160

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro  
165 170 175

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val  
180 185 190

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met  
195 200 205

His Glu Gly Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser  
210 215 220

Pro Gly Lys  
225

<210> 36  
<211> 224  
<212> PRT  
<213> Homo sapiens

<400> 36

Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser  
1 5 10 15

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

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

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

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

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

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

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu  
115 120 125

Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys  
130 135 140

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser  
145 150 155 160

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp  
165 170 175

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu Thr Val Asp Lys Ser  
180 185 190

Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala  
195 200 205

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys  
210 215 220

<210> 37  
<211> 227  
<212> PRT  
<213> Mus musculus

<400> 37

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

Ile Ser Leu Ser Pro Met Val Thr Cys Val Val Val Asp Val Ser Glu  
35 40 45

Asp Asp Pro Asp Val Gln Ile Ser Trp Phe Val Asn Asn Val Glu Val  
50 55 60

His Thr Ala Gln Thr Gln Thr His Arg Glu Asp Tyr Asn Ser Thr Leu  
65 70 75 80

Arg Val Val Ser Ala Leu Pro Ile Gln His Gln Asp Trp Met Ser Gly  
85 90 95

Lys Glu Phe Lys Cys Lys Val Asn Asn Arg Ala Leu Pro Ser Pro Ile  
100 105 110

Glu Lys Thr Ile Ser Lys Pro Arg Gly Pro Val Arg Ala Pro Gln Val  
115 120 125

Tyr Val Leu Pro Pro Pro Ala Glu Glu Met Thr Lys Lys Glu Phe Ser  
130 135 140

Leu Thr Cys Met Ile Thr Gly Phe Leu Pro Ala Glu Ile Ala Val Asp  
145 150 155 160

Trp Thr Ser Asn Gly Arg Thr Glu Gln Asn Tyr Lys Asn Thr Ala Thr  
165 170 175

Val Leu Asp Ser Asp Gly Ser Tyr Phe Met Tyr Ser Lys Leu Arg Val  
180 185 190

Gln Lys Ser Thr Trp Glu Arg Gly Ser Leu Phe Ala Cys Ser Val Val  
195 200 205

His Glu Gly Leu His Asn His Leu Thr Thr Lys Thr Ile Ser Arg Ser  
210 215 220

Leu Gly Lys  
225

<210> 38  
<211> 232  
<212> PRT  
<213> Mus musculus

<400> 38

Pro Arg Ile Pro Lys Pro Ser Thr Pro Pro Gly Ser Ser Cys Pro Pro  
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Gly Asn Ile Leu Gly Gly Pro Ser Val Phe Ile Phe Pro Pro Lys Pro  
20 25 30

Lys Asp Ala Leu Met Ile Ser Leu Thr Pro Lys Val Thr Cys Val Val  
35 40 45

Val Asp Val Ser Glu Asp Asp Pro Asp Val His Val Ser Trp Phe Val  
50 55 60

Asp Asn Lys Glu Val His Thr Ala Trp Thr Gln Pro Arg Glu Ala Gln  
65 70 75 80

Tyr Asn Ser Thr Phe Arg Val Val Ser Ala Leu Pro Ile Gln His Gln  
85 90 95

Asp Trp Met Arg Gly Lys Glu Phe Lys Cys Lys Val Asn Asn Lys Ala  
100 105 110

Leu Pro Ala Pro Ile Glu Arg Thr Ile Ser Lys Pro Lys Gly Arg Ala  
115 120 125

Gln Thr Pro Gln Val Tyr Thr Ile Pro Pro Pro Arg Glu Gln Met Ser  
130 135 140

Lys Lys Lys Val Ser Leu Thr Cys Leu Val Thr Asn Phe Phe Ser Glu  
145 150 155 160

Ala Ile Ser Val Glu Trp Glu Arg Asn Gly Glu Leu Glu Gln Asp Tyr  
165 170 175

Lys Asn Thr Pro Pro Ile Leu Asp Ser Asp Gly Thr Tyr Phe Leu Tyr  
180 185 190

Ser Lys Leu Thr Val Asp Thr Asp Ser Trp Leu Gln Gly Glu Ile Phe  
195 200 205

Thr Cys Ser Val Val His Glu Ala Leu His Asn His His Thr Gln Lys  
210 215 220

Asn Leu Ser Arg Ser Pro Gly Lys  
225 230

<210> 39  
<211> 398  
<212> PRT  
<213> Homo sapiens  
<400> 39

Met Gly Ala Pro Ala Ala Ser Leu Leu Leu Leu Leu Leu Phe Ala  
1 5 10 15

Cys Cys Trp Ala Pro Gly Gly Ala Asn Leu Ser Gln Asp Asp Ser Gln  
20 25 30

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

Lys Cys Gln Val Lys Asp His Glu Asp Ser Ser Leu Gln Trp Ser Asn  
50 55 60

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

Asn Arg Ile Gln Leu Val Thr Ser Thr Pro His Glu Leu Ser Ile Ser  
85 90 95

Ile Ser Asn Val Ala Leu Ala Asp Glu Gly Glu Tyr Thr Cys Ser Ile  
100 105 110

Phe Thr Met Pro Val Arg Thr Ala Lys Ser Leu Val Thr Val Leu Gly  
115 120 125

Ile Pro Gln Lys Pro Ile Ile Thr Gly Tyr Lys Ser Ser Leu Arg Glu  
130 135 140

Lys Asp Thr Ala Thr Leu Asn Cys Gln Ser Ser Gly Ser Lys Pro Ala  
145 150 155 160

Ala Arg Leu Thr Trp Arg Lys Gly Asp Gln Glu Leu His Gly Glu Pro  
165 170 175

Thr Arg Ile Gln Glu Asp Pro Asn Gly Lys Thr Phe Thr Val Ser Ser  
180 185 190

Ser Val Thr Phe Gln Val Thr Arg Glu Asp Asp Gly Ala Ser Ile Val  
195 200 205

Cys Ser Val Asn His Glu Ser Leu Lys Gly Ala Asp Arg Ser Thr Ser  
210 215 220



Gln Arg Ile Glu Val Leu Tyr Thr Pro Thr Ala Met Ile Arg Pro Asp  
225 230 235 240

Pro Pro His Pro Arg Glu Gly Gln Lys Leu Leu Leu His Cys Glu Gly  
245 250 255

Arg Gly Asn Pro Val Pro Gln Gln Tyr Leu Trp Glu Lys Glu Gly Ser  
260 265 270

Val Pro Pro Leu Lys Met Thr Gln Glu Ser Ala Leu Ile Phe Pro Phe  
275 280 285

Leu Asn Lys Ser Asp Ser Gly Thr Tyr Gly Cys Thr Ala Thr Ser Asn  
290 295 300

Met Gly Ser Tyr Lys Ala Tyr Tyr Thr Leu Asn Val Asn Asp Pro Ser  
305 310 315 320

Pro Val Pro Ser Ser Ser Thr Tyr His Ala Ile Ile Gly Gly Ile  
325 330 335

Val Ala Phe Ile Val Phe Leu Leu Leu Ile Met Leu Ile Phe Leu Gly  
340 345 350

His Tyr Leu Ile Arg His Lys Gly Thr Tyr Leu Thr His Glu Ala Lys  
355 360 365

Gly Ser Asp Asp Ala Pro Asp Ala Asp Thr Ala Ile Ile Asn Ala Glu  
370 375 380

Gly Gly Gln Ser Gly Gly Asp Asp Lys Lys Glu Tyr Phe Ile  
385 390 395

<210> 40  
<211> 442  
<212> PRT  
<213> Homo sapiens

<400> 40

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

Ala Ala Ala Ala Pro Pro Gly Leu Arg Leu Arg Leu Leu Leu Leu  
20 25 30

Phe Ser Ala Ala Ala Leu Ile Pro Thr Gly Asp Gly Gln Asn Leu Phe  
35 40 45

Thr Lys Asp Val Thr Val Ile Glu Gly Glu Val Ala Thr Ile Ser Cys  
50 55 60

Gln Val Asn Lys Ser Asp Asp Ser Val Ile Gln Leu Leu Asn Pro Asn  
65 70 75 80

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Arg Gln Thr Ile Tyr Phe Arg Asp Phe Arg Pro Leu Lys Asp Ser Arg  
85 90 95

Phe Gln Leu Leu Asn Phe Ser Ser Ser Glu Leu Lys Val Ser Leu Thr  
100 105 110

Asn Val Ser Ile Ser Asp Glu Gly Arg Tyr Phe Cys Gln Leu Tyr Thr  
115 120 125

Asp Pro Pro Gln Glu Ser Tyr Thr Thr Ile Thr Val Leu Val Pro Pro  
130 135 140

Arg Asn Leu Met Ile Asp Ile Gln Lys Asp Thr Ala Val Glu Gly Glu  
145 150 155 160

Glu Ile Glu Val Asn Cys Thr Ala Met Ala Ser Lys Pro Ala Thr Thr  
165 170 175

Ile Arg Trp Phe Lys Gly Asn Thr Glu Leu Lys Gly Lys Ser Glu Val  
180 185 190

Glu Glu Trp Ser Asp Met Tyr Thr Val Thr Ser Gln Leu Met Leu Lys  
195 200 205

Val His Lys Glu Asp Asp Gly Val Pro Val Ile Cys Gln Val Glu His  
210 215 220

Pro Ala Val Thr Gly Asn Leu Gln Thr Gln Arg Tyr Leu Glu Val Gln  
225 230 235 240

Tyr Lys Pro Gln Val His Ile Gln Met Thr Tyr Pro Leu Gln Gly Leu  
245 250 255

Thr Arg Glu Gly Asp Ala Leu Glu Leu Thr Cys Glu Ala Ile Gly Lys  
260 265 270

Pro Gln Pro Val Met Val Thr Trp Val Arg Val Asp Asp Glu Met Pro  
275 280 285

Gln His Ala Val Leu Ser Gly Pro Asn Leu Phe Ile Asn Asn Leu Asn  
290 295 300

Lys Thr Asp Asn Gly Thr Tyr Arg Cys Glu Ala Ser Asn Ile Val Gly  
305 310 315 320

Lys Ala His Ser Asp Tyr Met Leu Tyr Val Tyr Asp Pro Pro Thr Thr  
325 330 335

Ile Pro Pro Pro Thr Thr Thr Thr Thr Thr Thr Thr Thr Thr Thr Thr  
340 345 350

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Thr Ile Leu Thr Ile Ile Thr Asp Ser Arg Ala Gly Glu Glu Gly Ser  
355 360 365

Ile Arg Ala Val Asp His Ala Val Ile Gly Gly Val Val Ala Val Val  
370 375 380

Val Phe Ala Met Leu Cys Leu Leu Ile Ile Leu Gly Arg Tyr Phe Ala  
385 390 395 400

Arg His Lys Gly Thr Tyr Phe Thr His Glu Ala Lys Gly Ala Asp Asp  
405 410 415

Ala Ala Asp Ala Asp Thr Ala Ile Ile Asn Ala Glu Gly Gly Gln Asn  
420 425 430

Asn Ser Glu Glu Lys Lys Glu Tyr Phe Ile  
435 440

<210> 41  
<211> 21  
<212> PRT  
<213> Artificial

<220>  
<223> Synthetic peptide

<400> 41

Met Glu Val Gly Trp Tyr Arg Ser Pro Phe Ser Arg Val Val His Leu  
1 5 10 15

Tyr Arg Asn Gly Lys  
20