

SEQUENCE LISTING

<110> BEIJING TIANNUOJIANCHENG PHARMA TECH CO LTD

<120> Development of drug therapeutic agent containing adaptor and use thereof

<130> MTPISG20104

<150> CN202010873215X

<151> 2020-08-26

<160> 123

<170> PatentIn version 3.5

<210> 1

<211> 306

<212> PRT

<213> Homo sapiens

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Lys	Trp	Asn	Leu	Gly	Ser	Asn	Ala	Lys	Asp	Pro	Arg	Gly	Met	Tyr	Gln
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Cys	Lys	Gly	Ser	Gln	Asn	Lys	Ser	Lys	Pro	Leu	Gln	Val	Tyr	Tyr	Arg
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Met	Cys	Gln	Asn	Cys	Ile	Glu	Leu	Asn	Ala	Pro	Glu	Ala	Ala	Gly	Gly
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Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile
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Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys
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Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
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 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 245 250 255
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp
 260 265 270
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 Gly Lys
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 35 40 45
 Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp His Leu Ser Leu Lys
 50 55 60
 Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr Val Cys Tyr Pro Arg
 65 70 75 80
 Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu Tyr Leu Arg Ala Arg
 85 90 95
 Val Cys Glu Asn Cys Met Glu Met Asp Ala Pro Glu Ala Ala Gly Gly
 100 105 110
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 115 120 125
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 130 135 140
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 145 150 155 160
 Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
 165 170 175
 Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 180 185 190
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Ser Ile Glu
 195 200 205
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 210 215 220
 Thr Leu Pro Pro Cys Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
 225 230 235 240
 Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp

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Gly	Lys	Gly	Ser	Gly	Leu	Asn	Asp	Ile	Phe	Glu	Ala	Gln	Lys	Ile	Glu	
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Phe	Lys	Glu	Gly	Lys	Met	Ile	Asp	Ile	Leu	Thr	Ala	His	Lys	Asn	Lys	
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Trp	Asn	Leu	Gly	Ser	Asn	Thr	Lys	Asp	Pro	Arg	Gly	Val	Tyr	Gln	Cys	
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Lys	Gly	Ser	Lys	Asp	Lys	Ser	Lys	Thr	Leu	Gln	Val	Tyr	Tyr	Arg	Met	
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Cys	Gln	Asn	Cys	Ile	Glu	Leu	Asn	Ala	Pro	Glu	Ala	Ala	Gly	Gly	Pro	
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Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp	
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	130					135				140						
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			165					170					175			
Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Ser	Ile	Glu	Lys	
	180							185					190			
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	210					215					220					
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<213> Homo sapiens
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Gly	Ser	Glu 35	Ala	Gln	Trp	Gln	His 40	Asn	Gly	Lys	Asn 45	Lys	Glu	Asp	Ser
Gly	Asp 50	Arg	Leu	Phe	Leu	Pro 55	Glu	Phe	Ser	Glu	Met 60	Glu	Gln	Ser	Gly
Tyr 65	Tyr	Val	Cys	Tyr	Pro 70	Arg	Gly	Ser	Asn 75	Pro	Glu	Asp	Ala	Ser	His 80
His	Leu	Tyr	Leu	Lys 85	Ala	Arg	Val	Cys	Glu 90	Asn	Cys	Met	Glu	Met 95	Asp
Ala	Pro	Glu	Ala 100	Ala	Gly	Gly	Pro	Ser	Val 105	Phe	Leu	Phe	Pro	Pro 110	Lys
Pro	Lys	Asp	Thr 115	Leu	Met	Ile	Ser	Arg	Thr 120	Pro	Glu	Val	Thr	Cys	Val
Val	Val 130	Asp	Val	Ser	His	Glu 135	Asp	Pro	Glu	Val	Lys 140	Phe	Asn	Trp	Tyr
Val 145	Asp	Gly	Val	Glu	Val 150	His	Asn	Ala	Lys	Thr 155	Lys	Pro	Arg	Glu	Glu 160
Gln	Tyr	Asn	Ser	Thr 165	Tyr	Arg	Val	Val	Ser 170	Val	Leu	Thr	Val	Leu 175	His
Gln	Asp	Trp	Leu 180	Asn	Gly	Lys	Glu	Tyr	Lys 185	Cys	Lys	Val	Ser	Asn 190	Lys
Ala	Leu 195	Pro	Ala	Ser	Ile	Glu	Lys 200	Thr	Ile	Ser	Lys 205	Ala	Lys	Gly	Gln
Pro	Arg 210	Glu	Pro	Gln	Val	Tyr	Thr 215	Leu	Pro	Pro	Cys 220	Arg	Asp	Glu	Leu
Thr 225	Lys	Asn	Gln	Val	Ser 230	Leu	Trp	Cys	Leu	Val 235	Lys	Gly	Phe	Tyr	Pro 240
Ser	Asp	Ile	Ala	Val 245	Glu	Trp	Glu	Ser	Asn 250	Gly	Gln	Pro	Glu	Asn 255	Asn
Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu

260 265 270
 Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 275 280 285
 Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
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 Lys Ser Leu Ser Leu Ser Pro Gly Lys Gly Ser Gly Leu Asn Asp Ile
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 Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45
 Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Ala
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 aagcccggcc aggctcctag aggactgatc ggccggaacaa acaagagagc cccttgagaca 180
 cccgccagat tctctggatc tctgctcggc ggaaaggccg ctctgacact ttctggtgct 240
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<400> 8
 Gly Gly Thr Asn Lys Arg Ala Pro
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<210> 9
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<400> 9
 Ala Leu Trp Tyr Ser Asn Leu Trp Val
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<210> 10
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 20 25 30
 Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45
 Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Ala
 65 70 75 80
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 100 105

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aagcccggcc aggctcctag aggactgatc ggcggaacaa acaagagagc cccttggaca 180
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<210> 12
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<213> Homo sapiens

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20     25     30
Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Gly Gln Ala Pro Arg Gly
35     40     45
Leu Ile Gly Gly Thr Asn Lys Glu Ala Pro Trp Thr Pro Ala Arg Phe
50     55     60
Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Ala
65     70     75     80
Gln Pro Glu Asp Glu Ala Glu Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
85     90     95
Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100    105

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<210> 13
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<213> Homo sapiens

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aagcccggcc aggctcctag aggactgatc ggcggaacaa acaaggaggc cccttggaca 180
cccgccagat tctctggatc tctgctcggc ggaaaggccg ctctgacact ttctggtgct 240
cagcctgagg acgaggccga gtactattgt gccctgtggt acagcaacct gtgggtgttc 300
ggcggaggca ccaaactgac agttctg 327

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<210> 14
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<213> Homo sapiens

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<210> 15
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<212> PRT
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<210> 16
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 Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45
 Leu Ile Gly Gly Thr Asn Lys Glu Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Ala
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 85 90 95
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 100 105

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 aagcccggcc aggctcctag aggactgatc ggcggaacaa acaaggaggc cccttggaca 180
 cccgccagat tctctggatc tctgctcggc ggaaaggccg ctctgacact ttctggtgct 240
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 ggcggaggca ccaaactgac agttctg 327

<210> 18
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		35					40					45					
Leu	Ile	Gly	Gly	Thr	Asn	Lys	Arg	Ala	Pro	Trp	Thr	Pro	Ala	Arg	Phe		
	50				55						60						
Ser	Gly	Ser	Leu	Leu	Gly	Gly	Lys	Ala	Ala	Leu	Thr	Ile	Thr	Gly	Ala		
65				70						75				80			
Gln	Ala	Glu	Asp	Glu	Ala	Glu	Tyr	Tyr	Cys	Val	Leu	Trp	Tyr	Ser	Asn		
			85					90					95				
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<210> 19
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aagcccggcc aggctcctag aggactgac ggccggaacaa acaagagagc cccttggaca	180
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<210> 21
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<400> 21	
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<210> 22
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<400> 22	
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20           25           30
Asn Tyr Ala Asn Trp Phe Gln Glu Lys Pro Gly Gln Ala Pro Arg Gly
35           40           45
Leu Ile Tyr Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
50           55           60
Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Leu Ser Gly Ala
65           70           75           80
Gln Ala Glu Asp Glu Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn
85           90           95
Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100          105

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<210> 23
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<213> Homo sapiens

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aagcccggcc aggctcctag aggactgatc tacggaacaa acaagagagc cccttggaca      180
cccgccagat tctctggatc tctgctcggc ggaaaggccg ctctgacact ttctggtgct      240
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ggcggaggca ccaaactgac agttctg      327

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<210> 24
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<400> 24
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20           25           30
Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35           40           45
Ser Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
50           55           60
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
65           70           75           80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
85           90           95
Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
100          105          110
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115          120          125

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<210> 25
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 <212> DNA
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cctggcaaaag gactggaatg ggtgtccaga atcagggtcca agtacaacaa ctacgccacc      180
tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacacc      240
ctgtacctgc agatgaacag cctgagagcc gaggacaccg ccgtgtacta ctgtgtcaga      300
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<210> 26
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<400> 26
Asn Thr Tyr Ala Met Asn
1              5

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<210> 27
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<400> 27
Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val
1              5              10              15
Lys Asp

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<210> 28
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<400> 28
His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe Ala Tyr
1              5              10

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<210> 29
 <211> 125
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<400> 29
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly

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			20					25					30				
Ala	Met	Asn	Trp	Val	Arg	Lys	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
		35					40					45					
Ser	Arg	Ile	Arg	Ser	Lys	Tyr	Asn	Asn	Tyr	Ala	Thr	Tyr	Tyr	Ala	Asp		
	50					55					60						
Ser	Val	Lys	Asp	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr		
65					70				75					80			
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr		
			85					90					95				
Tyr	Cys	Val	Arg	His	Gly	Asn	Phe	Gly	Asn	Ser	Tyr	Val	Ser	Trp	Phe		
		100						105					110				
Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser					
		115					120					125					

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<400> 30
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 tcttgtgccg ccagcggctt caccttctcc acctacgcta tgaactgggt ccgaaaggcc 120
 cctggcaaaag gactggaatg ggtgtccaga atcagggtcca agtacaacaa ctacgccacc 180
 tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacacc 240
 ctgtacctgc agatgaacag cctgagagcc gaggacaccg ccgtgtacta ctgtgtcaga 300
 cacggcaact tcggcaacag ctatgtgtct tggtttgcct actggggcca gggcacactg 360
 gtcacagtta gctct 375

<210> 31
 <211> 6
 <212> PRT
 <213> Homo sapiens

<400> 31
 Ser Thr Tyr Ala Met Asn
 1 5

<210> 32
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 32
 Glu Val Gln Leu Val 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 Thr Tyr
 20 25 30
 Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val

	35					40					45				
Ser	Arg	Ile	Arg	Ser	Lys	Tyr	Asn	Asn	Tyr	Ala	Thr	Tyr	Tyr	Ala	Asp
	50					55					60				
Ser	Val	Lys	Asp	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Thr
65					70					75					80
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Val	Arg	His	Gly	Asn	Phe	Gly	Glu	Ser	Tyr	Val	Ser	Trp	Phe
			100					105					110		
Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser			
		115					120					125			

<210> 33
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 33
 gaggtgcagc tggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg 60
 tcttgtgccg ccagcggcctt caccttctcc acctacgcta tgaactgggt ccgaaaggcc 120
 cctggcaaag gactggaatg ggtgtccaga atcaggtcca agtacaacaa ctacgccacc 180
 tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacacc 240
 ctgtacctgc agatgaacag cctgagagcc gaggacaccg ccgtgtacta ctgtgtcaga 300
 cacggcaact tcggcgagag ctatgtgtct tggtttgcct actggggcca gggcacactg 360
 gtcacagtta gctct 375

<210> 34
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 34
 His Gly Asn Phe Gly Glu Ser Tyr Val Ser Trp Phe Ala Tyr
 1 5 10

<210> 35
 <211> 125
 <212> PRT
 <213> Homo sapiens

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

65		70		75		80									
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr
		85		90		95									
Tyr	Cys	Val	Arg	His	Gly	Asn	Phe	Gly	Gln	Ser	Tyr	Val	Ser	Trp	Phe
		100		105		110									
Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser			
		115		120		125									

<210> 36
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 36	
gaggtgcagc tggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg	60
tcttgtgccg ccagcggctt caccttctcc acctacgcta tgaactgggt ccgaaaggcc	120
cctggcaaag gactggaatg ggtgtccaga atcaggtcca agtacaacaa ctacgccacc	180
tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacacc	240
ctgtacctgc agatgaacag cctgagagcc gaggacaccg ccgtgtacta ctgtgtcaga	300
cacggcaact tcggccagag ctatgtgtct tggtttgctt actggggcca gggcacactg	360
gtcacagtta gctct	375

<210> 37
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 37	
His Gly Asn Phe Gly Gln Ser Tyr Val Ser Trp Phe Ala Tyr	
1	10

<210> 38
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 38	
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly	
1	15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr	
20	30
Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val	
35	45
Ser Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp	
50	60
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr	
65	80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr	
85	95
Tyr Cys Val Arg His Gly Asn Phe Gly Asp Ser Tyr Val Ser Trp Phe	

			100					105				110
Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser
		115					120					125

<210> 39
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 39
 gaggtgcagc tggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg 60
 tcttgtgccg ccagcggctt caccttctcc acctacgcta tgaactgggt ccgaaaggcc 120
 cctggcaaag gactggaatg ggtgtccaga atcagggtcca agtacaacaa ctacgccacc 180
 tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacacc 240
 ctgtacctgc agatgaacag cctgagagcc gaggacaccg ccgtgtacta ctgtgtcaga 300
 cacggcaact tcggcgacag ctatgtgtct tggtttgctt actggggcca gggcacactg 360
 gtcacagtta gctct 375

<210> 40
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 40
 His Gly Asn Phe Gly Asp Ser Tyr Val Ser Trp Phe Ala Tyr
 1 5 10

<210> 41
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 41
 Glu Val Gln Leu Val 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 Thr Tyr
 20 25 30
 Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
 50 55 60
 Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Val Arg His Gly Asn Phe Gly Thr Ser Tyr Val Ser Trp Phe
 100 105 110
 Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120 125

<210> 42
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 42
 gaggtgcagc tggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg 60
 tcttgtgccg ccagcggctt caccttctcc acctacgcta tgaactgggt ccgaaaggcc 120
 cctggcaaaag gactggaatg ggtgtccaga atcaggtcca agtacaacaa ctacgccacc 180
 tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacacc 240
 ctgtacctgc agatgaacag cctgagagcc gaggacaccg ccgtgtacta ctgtgtcaga 300
 cacggcaact tcggcaccag ctatgtgtct tggtttgcct actggggcca gggcacactg 360
 gtcacagtta gctct 375

<210> 43
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 43
 His Gly Asn Phe Gly Thr Ser Tyr Val Ser Trp Phe Ala Tyr
 1 5 10

<210> 44
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 44
 Glu Val Gln Leu Val 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 Asp Tyr
 20 25 30
 Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
 50 55 60
 Ser Val Glu Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
 100 105 110
 Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120 125

<210> 45
 <211> 375
 <212> DNA
 <213> Homo sapiens

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<400> 45
gaggtgcagc tggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg      60
tcttgtgccg ccagcggctt caccttctcc gactacgcta tgaactgggt ccgaaaggcc      120
cctggcaaag gactggaatg ggtgtccaga atcaggtcca agtacaacaa ctacgccacc      180
tactacgccg acagcgtgga ggacagattc accatcagca gggacgacag caagaacacc      240
ctgtacctgc agatgaacag cctgagagcc gaggacaccg ccgtgtacta ctgtgtcaga      300
cacggcaact tcggcaacag ctatgtgtct tggtttgcct actggggcca gggcacactg      360
gtcacagtta gctct                                     375

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<210> 46
<211> 6
<212> PRT
<213> Homo sapiens

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<400> 46
Ser Asp Tyr Ala Met Asn
1                5

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<210> 47
<211> 18
<212> PRT
<213> Homo sapiens

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<400> 47
Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser Val
1                5                10                15
Glu Asp

```

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<210> 48
<211> 125
<212> PRT
<213> Homo sapiens

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```

<400> 48
Glu Val Gln Leu Val 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 Asn Thr Tyr
20                25                30
Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val
35                40                45
Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
50                55                60
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
65                70                75                80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
85                90                95
Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
100                105                110

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Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120 125

<210> 49
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 49
 gaggtgcagc tgggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg 60
 tcttgtgccg ccagcggctt caccttcaac acctacgcta tgaactgggt ccgaaaggcc 120
 cctggcaaag gactggaatg ggtgggaaga atcaggtcca agtacaacaa ctacgccacc 180
 tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacagc 240
 ctgtacctgc agatgaacag cctgaaaacc gaggacaccg ccgtgtacta ctgtgccaga 300
 cacggcaact tcggcaacag ctatgtgtct tggtttgcct actggggcca gggcacactg 360
 gtcacagtta gctct 375

<210> 50
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 50
 Glu Val Gln Leu Val 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 Asn Thr Tyr
 20 25 30
 Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
 50 55 60
 Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
 100 105 110
 Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120 125

<210> 51
 <211> 375
 <212> DNA
 <213> Homo sapiens

<400> 51
 gaggtgcagc tgggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg 60
 tcttgtgccg ccagcggctt caccttcaac acctacgcta tgaactgggt ccgaaaggcc 120
 cctggcaaag gactggaatg ggtgggaaga atcaggtcca agtacaacaa ctacgccacc 180
 tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacagc 240

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ctgtacctgc agatgaacag cctgaaaacc gaggacaccg ccgtgtacta ctgtgtcaga      300
cacggcaact tcggcaacag ctatgtgtct tggtttgcct actggggcca gggcacactg      360
gtcacagtta gctct                                     375

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<210> 52
<211> 125
<212> PRT
<213> Homo sapiens

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<400> 52
Glu Val Gln Leu Val 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 Asn Thr Tyr
20          25          30
Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val
35          40          45
Ala Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
50          55          60
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
65          70          75          80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
85          90          95
Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
100         105         110
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115          120          125

```

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<210> 53
<211> 375
<212> DNA
<213> Homo sapiens

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```

<400> 53
gaggtgcagc tggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg      60
tcttgtgccg ccagcggctt caccttcaac acctacgcta tgaactgggt ccgaaaggcc      120
cctggcaaaag gactggaatg ggtggccaga atcaggtcca agtacaacaa ctacgccacc      180
tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacagc      240
ctgtacctgc agatgaacag cctgaaaacc gaggacaccg ccgtgtacta ctgtgtcaga      300
cacggcaact tcggcaacag ctatgtgtct tggtttgcct actggggcca gggcacactg      360
gtcacagtta gctct                                     375

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<210> 54
<211> 106
<212> PRT
<213> Homo sapiens

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```

<400> 54
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1          5          10          15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Ser Ser Val Ser Tyr Ile

```

			20					25					30				
His	Trp	Phe	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Pro	Leu	Ile	Tyr		
		35					40					45					
Ala	Thr	Ser	Asn	Leu	Ala	Ser	Gly	Ile	Pro	Asp	Arg	Phe	Ser	Gly	Ser		
	50					55					60						
Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Leu	Thr	Ile	Ser	Arg	Leu	Glu	Pro	Glu		
65					70					75					80		
Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Trp	Thr	Ser	Asn	Pro	Pro	Thr		
			85						90					95			
Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys								
			100					105									

<210> 55
 <211> 318
 <212> DNA
 <213> Homo sapiens

<400> 55
 gagatcgtgc tgacacagag ccctggcaca ctgtcactgt ctccaggcga gagagccaca 60
 ctgagctgta gagccagcag cagcgtgtcc tacatccact gggtccagca gaagcctgga 120
 caggccccta gacctctgat ctacgccaca agcaacctgg ccagcggcat ccctgataga 180
 ttcagcggct ctggcagcgg caccgactac acactgacaa tcagcagact ggaacccgag 240
 gacttcgccg tgtactactg ccagcagtgg accagcaatc ctcctacatt cggccagggc 300
 accaagctgg aaatcaag 318

<210> 56
 <211> 10
 <212> PRT
 <213> Homo sapiens

<400> 56
 Arg Ala Ser Ser Ser Val Ser Tyr Ile His
 1 5 10

<210> 57
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 57
 Ala Thr Ser Asn Leu Ala Ser
 1 5

<210> 58
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 58
 Gln Gln Trp Thr Ser Asn Pro Pro Thr

1 5
 <210> 59
 <211> 107
 <212> PRT
 <213> Homo sapiens

<400> 59
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
 65 70 75 80
 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Ile
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

<210> 60
 <211> 321
 <212> DNA
 <213> Homo sapiens

<400> 60
 gagatcgtgc tgacacagag ccctggcaca ctgtcactgt ctccaggcga gagagccaca 60
 ctgagctgta gagccagcca gagcgtgtcc tcttacctgg cctgggtatca gcagaagcct 120
 ggacaggctc ccagactgct gatctacgac gccagcaaca gagccacagg catccccgat 180
 agattcagcg gctctggctc tggcaccgac ttcaccctga caatcagcag actggaaccc 240
 gaggacttcg ccgtgtacta ctgccagcag agaagcaact ggcccatcac attcggccag 300
 ggcaccaagc tggaaatcaa g 321

<210> 61
 <211> 11
 <212> PRT
 <213> Homo sapiens

<400> 61
 Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala
 1 5 10

<210> 62
 <211> 7
 <212> PRT
 <213> Homo sapiens

<400> 62

Asp Ala Ser Asn Arg Ala Thr
 1 5

<210> 63

<211> 9

<212> PRT

<213> Homo sapiens

<400> 63

Gln Gln Arg Ser Asn Trp Pro Ile Thr
 1 5

<210> 64

<211> 121

<212> PRT

<213> Homo sapiens

<400> 64

Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Ser Thr Tyr Tyr Gly Gly Asp Trp Tyr Phe Asn Val Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 65

<211> 363

<212> DNA

<213> Homo sapiens

<400> 65

caggttcagc	tggttcagtc	tggcgccgaa	gtgaagaaac	ctggcagcag	cgtgaaggtg	60
tcctgcaagg	ctagcggcta	cacattcacc	agctacaaca	tgcactgggt	ccgacaggcc	120
cctggacagg	gacttgaatg	gatgggcgct	atctaccctg	gcaacggcga	cacctcctac	180
aaccagaaat	tccagggcag	agtgaccctg	accgccgaca	agtctagcag	caccgcctac	240
atggaactga	gcagcctgag	aagcgaggac	accgccgtgt	actactgtgc	cagaagcacc	300
tactacggcg	gcgactggta	cttcaacgtg	tggggacagg	gaaccctggt	caccgtttct	360
tct						363

<210> 66
 <211> 5
 <212> PRT
 <213> Homo sapiens

<400> 66
 Ser Tyr Asn Met His
 1 5

<210> 67
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 67
 Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe Gln
 1 5 10 15
 Gly

<210> 68
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 68
 Ser Thr Tyr Tyr Gly Gly Asp Trp Tyr Phe Asn Val
 1 5 10

<210> 69
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 69
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ser
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Ser Thr Tyr Tyr Gly Gly Asp Trp Tyr Phe Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser

115

120

<210> 70
 <211> 363
 <212> DNA
 <213> Homo sapiens

<400> 70
 caggttcagc tggttcagtc tggcgccgaa gtgaagaaac ctggcagcag cgtgaagggtg 60
 tcctgcaagg ctagcggcta cacattcacc agctacaaca tgcactgggt ccgacaggcc 120
 cctggacagg gacttgaatg gatgggctg atctaccctg gcaacggcga cacctcctac 180
 aaccagaaat tccagggcag agtgaccctg accgccgaca agtctagcag caccgcctac 240
 atggaactga gcagcctgag aagcgaggac accgccgtgt actactgtgc cagaagcacc 300
 tactacggcg gcgactggta cttcgactat tggggacagg gaaccctggt caccgtttct 360
 tct 363

<210> 71
 <211> 12
 <212> PRT
 <213> Homo sapiens

<400> 71
 Ser Thr Tyr Tyr Gly Gly Asp Trp Tyr Phe Asp Tyr
 1 5 10

<210> 72
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 72
 Glu Val Gln Leu Val 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 Tyr Thr Phe Thr Ser Tyr
 20 25 30
 Asn Met His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45
 Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Ser Thr Tyr Tyr Gly Gly Asp Trp Tyr Phe Asn Val Trp Gly
 100 105 110
 Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 73
 <211> 363

<212> DNA
 <213> Homo sapiens

<400> 73
 gaggtgcagc tgggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg 60
 tcttgtgccg ccagcggcta caccttcacc agctacaata tgcactgggt ccgacaggcc 120
 cctggacagg gacttgaatg gatgggcgct atctaccctg gcaacggcga cacctcctac 180
 aaccagaaat tccagggcag agtgaccctg accgccgaca agtctagcag caccgcctac 240
 atggaactga gcagcctgag aagcgaggac accgccgtgt actactgtgc cagaagcacc 300
 tactacggcg gcgactggta cttcaacgtg tggggacagg gaaccctggc caccgtttct 360
 tct 363

<210> 74
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 74
 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 Asn Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys 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 Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Val Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 75
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 75
 gaagtgcagc tgctggaatc tggcggagga ctggttcaac ctggcggctc tctgagactg 60
 tcttgtgccg cttctggctt caccttcaac gactacgcca tgcactgggt ccgacaggcc 120
 cctggaaaag gactggaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaagggcag attcaccatc tccagagaca acgccaagaa aaccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac gtgtggggcc aggggaacact ggttaccgtt 360
 agctct 366

<210> 76

<211> 5
 <212> PRT
 <213> Homo sapiens

<400> 76
 Asp Tyr Ala Met His
 1 5

<210> 77
 <211> 17
 <212> PRT
 <213> Homo sapiens

<400> 77
 Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly Tyr Ala Asp Ser Val Lys
 1 5 10 15
 Gly

<210> 78
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 78
 Asp Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Val
 1 5 10

<210> 79
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 79
 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 Asn Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly 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 Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Val Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 80
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 80
 gaagtgcagc tgctggaatc tgggtggcggga ctggttcagc ctggcggctc tctgagactg 60
 tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgacaggcc 120
 cctggcaaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaagggcag attcaccatc tccagagaca acagcaagaa caccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac gtgtggggcc agggaacact ggttaccgtt 366
 agctct

<210> 81
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 81
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly 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 Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Val Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 82
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 82
 gaagtgcagc tgctggaatc tgggtggcggga gttgttcagc ctggcggctc tctgagactg 60
 tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgacaggcc 120
 cctggcaaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaagggcag attcaccatc tccagagaca acagcaagaa caccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac gtgtggggcc agggaacact ggttaccgtt 366

agctct

366

<210> 83
 <211> 122
 <212> PRT
 <213> Homo sapiens

<400> 83
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly 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 Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Tyr Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 115 120

<210> 84
 <211> 366
 <212> DNA
 <213> Homo sapiens

<400> 84
 gaagtgcagc tgctggaatc tgggtggcgga gttgttcagc ctggcggctc tctgagactg 60
 tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgacaggcc 120
 cctggcaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaagggcag attcaccatc tccagagaca acagcaagaa caccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac tactggggcc agggaacact ggttaccgtt 360
 agctct 366

<210> 85
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 85
 Asp Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Tyr
 1 5 10

<210> 86
 <211> 448

<212> PRT

<213> Homo sapiens

<400> 86

Gln	Val	Gln	Leu	Val	Gln	Ser	Gly	Ala	Glu	Val	Lys	Lys	Pro	Gly	Ser
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Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr	Phe	Thr	Ser	Tyr
			20					25					30		
Asn	Met	His	Trp	Val	Arg	Glu	Ala	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Met
		35					40					45			
Gly	Ala	Ile	Tyr	Pro	Gly	Asn	Gly	Asp	Thr	Ser	Tyr	Asn	Gln	Lys	Phe
	50					55					60				
Gln	Gly	Arg	Val	Thr	Leu	Thr	Ala	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr
65					70					75					80
Met	Glu	Leu	Ser	Ser	Leu	Arg	Ser	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
				85					90					95	
Ala	Arg	Ser	Thr	Tyr	Tyr	Gly	Gly	Asp	Trp	Tyr	Phe	Asp	Tyr	Trp	Gly
			100					105					110		
Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser
		115					120					125			
Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala
	130					135					140				
Ala	Leu	Gly	Cys	Leu	Val	Glu	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val
145					150					155					160
Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala
				165					170					175	
Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val
			180					185					190		
Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp	His
		195					200					205			
Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Glu	Arg	Val	Glu	Ser	Lys	Tyr	Gly
	210					215					220				
Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu	Gly	Gly	Pro	Ser
225					230					235					240
Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser	Arg
				245					250					255	
Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp	Pro
			260					265					270		
Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn	Ala
		275					280					285			
Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Ala	Ser	Thr	Tyr	Arg	Val	Val
	290					295					300				
Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu	Tyr
305					310					315					320
Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr
				325					330					335	
Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Cys	Thr	Leu
			340					345					350		
Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Ser	Cys
			355				360						365		

Ala	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser
370						375					380				
Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp
385					390					395					400
Ser	Asp	Gly	Ser	Phe	Phe	Leu	Val	Ser	Lys	Leu	Thr	Val	Asp	Lys	Ser
				405					410					415	
Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu	Ala
			420					425					430		
Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys
		435					440						445		

<210> 87
 <211> 1344
 <212> DNA
 <213> Homo sapiens

<400> 87
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 tcctgcaagg ctagcggcta cacattcacc agctacaaca tgcactgggt ccgagaggcc 120
 cctggacagg gacttgaatg gatgggcgct atctaccctg gcaacggcga cacctcctac 180
 aaccagaaat tccagggcag agtgaccctg accgccgaca agtctagcag caccgcctac 240
 atggaactga gcagcctgag aagcgaggac accgccgtgt actactgtgc cagaagcacc 300
 tactacggcg gcgactggta cttcgactat tggggacagg gaaccctggt caccgtttct 360
 tctgctagca ccaagggccc cagcgtgttc cccctggccc cttgcagcag aagcaccagc 420
 gagagcacag ccgccctggg ctgcctgggtg gaggactact tccccgagcc cgtgaccgtg 480
 tcctggaaca gcggcgctct gaccagcggc gtgcatacct tccccgccgt gctccagagc 540
 agcggactgt actccctgag cagcgtgggtg accgtgcctt ccagcagcct gggcaccaag 600
 acctacacct gcaacgtgga ccacaagccc agcaacacca aggtggacga gagagtggag 660
 agcaagtacg gccctccctg ccccccttgc cctgcccccg agttcgaagg cggacctagc 720
 gtgttcctgt tcccccccaa gcccaaggac accctgatga tcagcagaac ccccgagggtg 780
 acctgcgtgg tgggtggacgt gtcccaggag gaccccgagg tccagtttaa ttggtacgtg 840
 gacggcgtgg aagtgcataa cgccaagacc aagcccagag aggagcagtt cgccagcacc 900
 tacagagtgg tgtccgtgct gaccgtgctg caccaggact ggctgaacgg caaggaatac 960
 aagtgcaagg tctccaacaa gggcctgcct agcagcatcg agaagaccat cagcaaggcc 1020
 aagggccagc cacgggagcc ccaggtctgc accctgccac ctagccaaga ggagatgacc 1080
 aagaaccagg tgtccctgag ctgtgccgtg aaaggcttct atcccagcga tatcgccgtg 1140
 gagtgggaga gcaacggcca gcccgagaac aactacaaga ccaccccccc tgtgctggac 1200
 agcgacggca gcttcttcct ggtttccaag ctgaccgtgg acaagtccag atggcaggag 1260
 ggcaacgtct tcagctgctc cgtgatgcac gaggccctgc acaaccacta caccagaag 1320
 tccctgagcc tgagcctggg caag 1344

<210> 88
 <211> 213
 <212> PRT
 <213> Homo sapiens

<400> 88
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Ser Ser Val Ser Tyr Ile

	20		25		30										
His	Trp	Phe	Gln	Lys	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Pro	Leu	Ile	Tyr
	35						40					45			
Ala	Thr	Ser	Asn	Leu	Ala	Ser	Gly	Ile	Pro	Asp	Arg	Phe	Ser	Gly	Ser
	50					55					60				
Gly	Ser	Gly	Thr	Asp	Tyr	Thr	Leu	Thr	Ile	Ser	Arg	Leu	Glu	Pro	Glu
65				70						75				80	
Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Trp	Thr	Ser	Asn	Pro	Pro	Thr
			85						90				95		
Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Thr	Val	Ala	Ala	Pro
	100							105				110			
Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Lys	Lys	Leu	Lys	Ser	Gly	Thr
	115						120				125				
Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala	Lys
	130					135					140				
Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln	Glu
145				150						155				160	
Ser	Val	Thr	Glu	Gln	Asp	Ser	Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser	Ser
			165					170					175		
Thr	Leu	Thr	Leu	Ser	Lys	Ala	Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr	Ala
	180							185					190		
Cys	Glu	Val	Thr	His	Gln	Gly	Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser	Phe
	195						200					205			
Asn	Arg	Gly	Glu	Cys											
	210														

<210> 89
 <211> 639
 <212> DNA
 <213> Homo sapiens

<400> 89	
gagatcgtgc	tgacacagag ccctggcaca ctgtcactgt ctccaggcga gagagccaca 60
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caggccccta	gacctctgat ctacgccaca agcaacctgg ccagcggcat ccctgataga 180
ttcagcggct	ctggcagcgg caccgactac aacttgacaa tcagcagact ggaacccgag 240
gacttcgccg	tgtactactg ccagcagtgg accagcaatc ctcctacatt cggccagggc 300
accaagctgg	aaatcaagcg aactgtggct gcacatctg tcttcatctt cccgccatct 360
gataagaaaat	tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
agagaggcca	aagtacagtg gaagggtggat aacgccctcc aatcgggtaa ctcccaggag 480
agtgtcacag	agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
agcaaagcag	actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
agctcgcgccg	tcacaaagag cttcaacagg ggagagtgt 639

<210> 90
 <211> 444
 <212> PRT
 <213> Homo sapiens

<400> 90

Gln 1	Ala	Val	Val	Thr 5	Gln	Glu	Pro	Ser	Leu 10	Thr	Val	Ser	Pro	Gly 15	Gly
Thr	Val	Thr	Leu 20	Thr	Cys	Arg	Ser	Ser 25	Thr	Gly	Ala	Val	Thr 30	Thr	Ser
Asn	Tyr	Ala 35	Asn	Trp	Val	Gln	Glu 40	Lys	Pro	Gly	Gln	Ala 45	Pro	Arg	Gly
Leu	Ile 50	Gly	Gly	Thr	Asn	Lys 55	Arg	Ala	Pro	Trp	Thr 60	Pro	Ala	Arg	Phe
Ser 65	Gly	Ser	Leu	Leu 70	Gly	Gly	Lys	Ala	Ala 75	Leu	Thr	Ile	Thr	Gly	Ala 80
Gln	Ala	Glu	Asp 85	Glu	Ala	Glu	Tyr	Tyr 90	Cys	Val	Leu	Trp	Tyr 95	Ser	Asn
Leu	Trp	Val	Phe 100	Gly	Gly	Gly	Thr	Lys 105	Leu	Thr	Val	Leu	Gly 110	Gln	Pro
Lys	Ala	Ala 115	Pro	Ser	Val	Thr	Leu 120	Phe	Pro	Pro	Ser	Ser 125	Glu	Glu	Leu
Gln	Ala 130	Asn	Lys	Ala	Thr	Leu 135	Val	Cys	Leu	Ile	Ser 140	Asp	Phe	Tyr	Pro
Gly 145	Ala	Val	Thr	Val 150	Ala	Trp	Lys	Ala	Asp 155	Ser	Ser	Pro	Val	Lys	Ala 160
Gly	Val	Glu	Thr 165	Thr	Thr	Pro	Ser	Lys 170	Gln	Ser	Asn	Asn 175	Lys	Tyr	Ala
Ala	Ser	Ser 180	Tyr	Leu	Ser	Leu	Thr	Pro 185	Glu	Gln	Trp	Lys 190	Ser	His	Arg
Ser	Tyr	Ser 195	Cys	Gln	Val	Thr	His 200	Glu	Gly	Ser	Thr 205	Val	Glu	Lys	Thr
Val	Ala 210	Pro	Thr	Glu	Cys	Ser 215	Glu	Ser	Lys	Tyr	Gly 220	Pro	Pro	Cys	Pro
Pro 225	Cys	Pro	Ala	Pro	Glu 230	Phe	Glu	Gly	Gly 235	Pro	Ser	Val	Phe	Leu	Phe 240
Pro	Pro	Lys	Pro 245	Lys	Asp	Thr	Leu	Met	Ile 250	Ser	Arg	Thr	Pro	Glu	Val 255
Thr	Cys	Val 260	Val	Val	Asp	Val	Ser	Gln 265	Glu	Asp	Pro	Glu	Val	Gln	Phe 270
Asn	Trp	Tyr 275	Val	Asp	Gly	Val	Glu 280	Val	His	Asn	Ala 285	Lys	Thr	Lys	Pro
Arg	Glu 290	Glu	Gln	Phe	Ala 295	Ser	Thr	Tyr	Arg	Val 300	Val	Ser	Val	Leu	Thr
Val 305	Leu	His	Gln	Asp 310	Trp	Leu	Asn	Gly	Lys 315	Glu	Tyr	Lys	Cys	Lys	Val 320
Ser	Asn	Lys	Gly 325	Leu	Pro	Ser	Ser	Ile	Glu 330	Lys	Thr	Ile	Ser	Lys	Ala 335
Lys	Gly	Gln 340	Pro	Arg	Glu	Pro	Gln 345	Val	Tyr	Thr	Leu	Pro	Pro	Cys	Gln
Glu	Glu	Met 355	Thr	Lys	Asn	Gln	Val 360	Ser	Leu	Trp	Cys 365	Leu	Val	Lys	Gly
Phe	Tyr 370	Pro	Ser	Asp	Ile	Ala 375	Val	Glu	Trp	Glu 380	Ser	Asn	Gly	Gln	Pro
Glu 385	Asn	Asn	Tyr	Lys 390	Thr	Thr	Pro	Pro	Val 395	Leu	Asp	Ser	Asp	Gly	Ser 400

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Glu
 405 410 415
 Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
 420 425 430
 Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly Lys
 435 440

<210> 91
 <211> 1332
 <212> DNA
 <213> Homo sapiens

<400> 91
 caggctgtgg tcacacaaga gcctagcctg acagtgtctc ctggcggcac agtgaccctg 60
 acctgtagat cttctacagg cgccgtgacc accagcaact acgctaattg ggtgcaggag 120
 aagcccggcc aggtccttag aggactgata ggccggaacaa acaagagagc cccttggaca 180
 cccgccagat tctctggatc tctgctcggc ggaaaggccg ctctgacaat cactggtgct 240
 caggctgagg acgaggccga gtactattgt gtgctgtggt acagcaacct gtgggtgttc 300
 ggccggaggca ccaaactgac agttctgggt cagcccaagg cggcgccctc ggtcactctg 360
 ttcccgccct cctctgagga gcttcaagcc aacaaggcca cactggtgtg tctcataagt 420
 gacttctatc cgggagccgt gacagtggcc tggaaggcag atagcagccc cgtcaaggcg 480
 ggagtggaga ccaccacacc ctcaaacaac agcaacaaca agtacgaggc cagcagctac 540
 ctgagcctga cgcctgagca gtggaagtcc cacagaagct acagctgcca ggtcacgcat 600
 gaaggaggca ccgtggagaa gacagtggcc cctacagaat gttcagagag caagtacggc 660
 cctccctgcc ccccttgccc tgcccccgag ttcgagggcg gacctagcgt gttcctgttc 720
 ccccccaagc ccaaggacac cctgatgata agcagaaccc ccgaggtgac ctgcgtggtg 780
 gtggacgtgt cccaggagga ccccgaggtc cagttaattt ggtacgtgga cggcgtggaa 840
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 tccgtgctga ccgtgctgca ccaggactgg ctgaacggca aggaatacaa gtgcaaggtc 960
 tccaacaagg gcctgcctag cagcatcgag aagaccatca gcaaggccaa gggccagcca 1020
 cgggagcccc aggtctacac cctgccacct tgtcaagagg agatgaccaa gaaccagggtg 1080
 tccctgtggt gtctgttgaa aggcttctat cccagcgata tcgccgtgga gtgggagagc 1140
 aacggccagc ccgagaacaa ctacaagacc accccccctg tgctggagag cgacggcagc 1200
 ttcttcctgt actccaagct gaccgtggac aagtccagat ggcaggaggg caacgtcttc 1260
 agctgctccg tgatgcacga ggccctgcac aaccactaca cccagaagtc cctgagcctg 1320
 agcctgggca ag 1332

<210> 92
 <211> 223
 <212> PRT
 <213> Homo sapiens

<400> 92
 Glu Val Gln Leu Val 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 Asn Thr Tyr
 20 25 30
 Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp

50	55	60
Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser		
65	70	75
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr		
	85	90
Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe		
	100	105
Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr		
	115	120
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser		
	130	135
Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu		
145	150	155
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His		
	165	170
Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser		
	180	185
Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys		
	195	200
Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val		
	210	220

<210> 93
 <211> 669
 <212> DNA
 <213> Homo sapiens

<400> 93	
gaggtgcagc tggttgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg	60
tcttgtgccg ccagcggctt caccttcaac acctacgcta tgaactgggt ccgaaaggcc	120
cctggcaaag gactggaatg ggtgggaaga atcaggtcca agtacaacaa ctacgccacc	180
tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacagc	240
ctgtacctgc agatgaacag cctgaaaacc gaggacaccg ccgtgtacta ctgtgtcaga	300
cacggcaact tcggcaacag ctatgtgtct tggtttgcct actggggcca gggcacactg	360
gtcacagtta gctctgctag caccaagggc cccagcgtgt tccccctggc cccttgacgc	420
agaagcacca gcgagagcac agccgccctg ggctgcctgg tgaaggacta cttccccgag	480
cccgtgaccg tgtcctggaa cagcggcgct ctgaccagcg gcgtgcatac cttccccgcc	540
gtgctccaga gcagcggact gtactccctg agcagcgtgg tgaccgtgcc ttccagcagc	600
ctggggcacca agacctacac ctgcaacgtg gaccacaagc ccagcaaacac caaggtggac	660
aagagagtg	669

<210> 94
 <211> 449
 <212> PRT
 <213> Homo sapiens

<400> 94	
Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly	
1	5
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr	
	10
	15

			20					25					30		
Ala	Met	His	Trp	Val	Arg	Glu	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ser	Thr	Ile	Ser	Trp	Asn	Ser	Gly	Ser	Ile	Gly	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	Ile	Gln	Tyr	Gly	Asn	Tyr	Tyr	Tyr	Gly	Met	Asp	Val	Trp
			100					105					110		
Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro
		115						120					125		
Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr
	130					135					140				
Ala	Ala	Leu	Gly	Cys	Leu	Val	Glu	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr
145					150					155					160
Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro
				165					170					175	
Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr
			180					185					190		
Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp
		195					200					205			
His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Glu	Arg	Val	Glu	Ser	Lys	Tyr
	210					215					220				
Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu	Gly	Gly	Pro
225					230					235					240
Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser
				245						250				255	
Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp
			260					265					270		
Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn
		275					280					285			
Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Ala	Ser	Thr	Tyr	Arg	Val
	290					295					300				
Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu
305					310					315					320
Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys
				325					330					335	
Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Cys	Thr
			340					345					350		
Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Ser
		355					360					365			
Cys	Ala	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu
	370					375					380</				

420 425 430
 Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
 435 440 445
 Lys

<210> 95
 <211> 1347
 <212> DNA
 <213> Homo sapiens

<400> 95
 gaagtgcagc tgctggaatc tgggtggcggga ctggttcagc ctggcggctc tctgagactg 60
 tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgagaggcc 120
 cctggcaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaagggcag attcaccatc tccagagaca acagcaagaa caccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac gtgtggggcc agggaacact ggttaccgtt 360
 agctctgcta gcaccaaggg ccccgacgtg tttcccctgg ccccttgagc cagaagcacc 420
 agcgagagca cagccgccct gggctgcctg gtggaggact acttccccga gcccgtgacc 480
 gtgtcctgga acagcggcgc tctgaccagc ggcgtgcata ctttccccgc cgtgctccag 540
 agcagcggac tgtactccct gagcagcgtg gtgaccgtgc cttccagcag cctgggcacc 600
 aagacctaca cctgcaacgt ggaccacaag cccagcaaca ccaaggtgga cgagagagtg 660
 gagagcaagt acggccctcc ctgccccctt tgccctgccc ccgagttcga aggcggaacct 720
 agcgtgttcc tgttcccccc caagcccaag gacaccctga tgatcagcag aacccccgag 780
 gtgacctgcg tgggtggtgga cgtgtcccag gaggaccccg aggtccagtt taattggtac 840
 gtggacggcg tgggaagtgca taacgccaaag accaagccca gagaggagca gttcgccagc 900
 acctacagag tgggtgtccgt gctgaccgtg ctgcaccagg actggctgaa cggcaaggaa 960
 tacaagtgca aggtctccaa caagggcctg cctagcagca tcgagaagac catcagcaag 1020
 gccaaaggcc agccacggga gcccaggtc tgcaccctgc cacctagcca agaggagatg 1080
 accaagaacc aggtgtccct gagctgtgcc gtgaaaggct tctatcccag cgatatcgcc 1140
 gtggagtggg agagcaacgg ccagcccagag aacaactaca agaccacccc ccctgtgctg 1200
 gacagcgacg gcagcttctt cctggtttcc aagctgaccg tggacaagtc cagatggcag 1260
 gagggcaacg tcttcagctg ctccgtgatg cacgaggccc tgcacaacca ctacaccag 1320
 aagtccctga gcctgagcct gggcaag 1347

<210> 96
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 96
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
 50 55 60

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

<210> 97
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 97
 gagatcgtgc tgacacagag ccctggcaca ctgtcactgt ctccaggcga gagagccaca 60
 ctgagctgta gagccagcca gagcgtgtcc tcttacctgg cctgggtatca gaagaagcct 120
 ggacaggctc ccagactgct gatctacgac gccagcaaca gagccacagg catccccgat 180
 agattcagcg gctctggctc tggcaccgac ttcaccctga caatcagcag actggaaccc 240
 gaggacttcg ccgtgtacta ctgccagcag agaagcaact ggccccatcac attcggccag 300
 ggcaccaagc tggaaatcaa gcgaactgtg gctgcaccat ctgtcttcat cttcccgccca 360
 tctgataaga aattgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 98
 <211> 449
 <212> PRT
 <213> Homo sapiens

<400> 98
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Glu Ala Pro Gly Lys Gly Leu Glu Trp Val

		35				40				45					
Ser	Thr	Ile	Ser	Trp	Asn	Ser	Gly	Ser	Ile	Gly	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	Ile	Gln	Tyr	Gly	Asn	Tyr	Tyr	Tyr	Gly	Met	Asp	Tyr	Trp
			100					105					110		
Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro
		115					120					125			
Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr
	130					135					140				
Ala	Ala	Leu	Gly	Cys	Leu	Val	Glu	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr
145					150					155					160
Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro
			165						170					175	
Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr
			180					185					190		
Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp
		195					200					205			
His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Glu	Arg	Val	Glu	Ser	Lys	Tyr
	210					215					220				
Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu	Gly	Gly	Pro
225					230					235					240
Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser
				245					250					255	
Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp
			260					265					270		
Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn
		275					280					285			
Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Ala	Ser	Thr	Tyr	Arg	Val
	290					295					300				
Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu
305					310					315					320
Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys
			325						330					335	
Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Cys	Thr
			340					345					350		
Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Ser
		355					360					365			
Cys	Ala	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu
	370					375					380				
Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu
385					390					395					400
Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Val	Ser	Lys	Leu	Thr	Val	Asp	Lys
			405						410					415	
Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu
			420					425					430		
Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly

435 440 445

Lys

<210> 99
 <211> 1347
 <212> DNA
 <213> Homo sapiens

<400> 99
 gaagtgcagc tgctggaatc tgggtggcgga gttgttcagc ctggcggctc tctgagactg 60
 tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgagaggcc 120
 cctggcaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaagggcag attcaccatc tccagagaca acagcaagaa caccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac tactggggcc agggaacact ggttaccgtt 360
 agctctgcta gcaccaaggg cccagcgtg ttccccctgg ccccttgag cagaagcacc 420
 agcgagagca cagccgccct gggctgcctg gtggaggact acttccccga gcccgtgacc 480
 gtgtcctgga acagcggcgc tctgaccagc ggcgtgcata cttccccgc cgtgctccag 540
 agcagcggac tgtactccct gagcagcgtg gtgaccgtgc cttccagcag cctgggcacc 600
 aagacctaca cctgcaacgt ggaccacaag cccagcaaca ccaagggtgga cgagagagtg 660
 gagagcaagt acggccctcc ctgccccct tgccctgccc ccgagttcga aggcggacct 720
 agcgtgttcc tgttcccccc caagcccaag gacaccctga tgatcagcag aacccccgag 780
 gtgacctgcg tgggtggtgga cgtgtccag gaggaccccg aggtccagtt taattggtac 840
 gtggacggcg tggaagtgca taacgccaaag accaagccca gagaggagca gttcgccagc 900
 acctacagag tgggtgtccgt gctgaccgtg ctgcaccagg actggctgaa cggcaaggaa 960
 tacaagtgca aggtctccaa caagggcctg cctagcagca tcgagaagac catcagcaag 1020
 gccaaaggcc agccacggga gccccaggct tgcaccctgc cacctagcca agaggagatg 1080
 accaagaacc aggtgtccct gagctgtgcc gtgaaaggct tctatcccag cgatatcgcc 1140
 gtggagtggg agagcaacgg ccagcccag aacaactaca agaccacccc ccctgtgctg 1200
 gacagcgacg gcagcttctt cctggtttcc aagctgaccg tggacaagtc cagatggcag 1260
 gagggcaacg tcttcagctg ctccgtgatg cacgaggccc tgcacaacca ctacaccag 1320
 aagtccctga gcctgagcct gggcaag 1347

<210> 100
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 100
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Ile
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Lys Lys Leu Lys Ser Gly
 115 120 125
 Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 130 135 140
 Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 145 150 155 160
 Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 165 170 175
 Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 180 185 190
 Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 195 200 205
 Phe Asn Arg Gly Glu Cys
 210

<210> 101
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 101
 gagatcgtgc tgacacagag ccctggcaca ctgtcactgt ctccaggcga gagagccaca 60
 ctgagctgta gagccagcca gagcgtgtcc tcttacctgg cctgggtatca gaagaagcct 120
 ggacaggctc ccagactgct gatctacgac gccagcaaca gagccacagg catccccgat 180
 agattcagcg gctctggctc tggcaccgac ttcaccctga caatcagcag actggaaccc 240
 gaggacttcg ccgtgtacta ctgccagcag agaagcaact ggcccatcac attcggccag 300
 ggcaccaagc tggaaatcaa gcgaactgtg gctgcaccat ctgtcttcat cttcccgcca 360
 tctgataaga aattgaaatc tggaaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 102
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 102
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly

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

<210> 103
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 103
 gagatcgtgc tgacacagag ccctggcaca ctgtcactgt ctccaggcga gagagccaca 60
 ctgagctgta gagccagcca gagcgtgtcc tcttacctgg cctgggtatca gcagaagcct 120
 ggacaggctc ccagactgct gatctacgac gccagcaaca gagccacagg catccccgat 180
 agattcagcg gctctggctc tggcaccgac ttcaccctga caatcagcag actggaaccc 240
 gaggacttcg ccgtgtacta ctgccagcag agaagcaact ggcccatacac attcggccag 300
 ggcaccaagc tggaaatcaa gcgaactgtg gctgcaccat ctgtcttcat cttcccgccca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 ccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 104
 <211> 449
 <212> PRT
 <213> Homo sapiens

<400> 104
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr
 20 25 30

Ala	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ser	Thr	Ile	Ser	Trp	Asn	Ser	Gly	Ser	Ile	Gly	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	Ile	Gln	Tyr	Gly	Asn	Tyr	Tyr	Tyr	Gly	Met	Asp	Tyr	Trp
			100					105					110		
Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro
		115						120					125		
Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr
	130					135					140				
Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr
145					150					155					160
Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro
				165					170					175	
Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr
			180					185					190		
Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp
		195					200					205			
His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr
	210					215					220				
Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu	Gly	Gly	Pro
225					230					235					240
Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser
				245					250					255	
Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp
			260					265						270	
Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn
		275					280					285			
Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val
		290				295					300				
Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu
305					310					315					320
Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Ala	Ser	Ser	Ile	Glu	Lys
				325					330					335	
Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Cys	Thr
			340					345					350		
Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Ser
		355					360					365			
Cys	Ala	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu
		370				375					380				
Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr							

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
 435 440 445
 Lys

<210> 105
 <211> 1347
 <212> DNA
 <213> Homo sapiens

<400> 105
 gaagtgcagc tgctggaatc tgggtggcggga gttgtttcagc ctggcggctc tctgagactg 60
 tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgacaggcc 120
 cctggcaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaagggcag attcaccatc tccagagaca acagcaagaa caccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac tactggggcc agggaacact ggttaccgtt 360
 agctctgcta gcaccaaggg cccagcgtg tttcccctgg ccccttgag cagaagcacc 420
 agcgagagca cagccgccct gggctgcctg gtgaaggact acttccccga gcccgtgacc 480
 gtgtcctgga acagcggcgc tctgaccagc ggcgtgcata ctttccccgc cgtgctccag 540
 agcagcggac tgtactccct gagcagcgtg gtgaccgtgc cttccagcag cctgggcacc 600
 aagacctaca cctgcaacgt ggaccacaag cccagcaaca ccaagggtgga caagagagtg 660
 gagagcaagt acggccctcc ctgccccctc tgccctgccc ccgagttcga gggcggacct 720
 agcgtgttcc tgttcccccc caagcccaag gacaccctga tgatcagcag aacccccgag 780
 gtgacctgcg tgggtggtgga cgtgtcccag gaggaccccg aggtccagtt taattggtac 840
 gtggacggcg tggaagtgca taacgccaaag accaagccca gagaggagca gttcaacagc 900
 acctacagag tgggtgtccgt gctgaccgtg ctgcaccagg actggctgaa cggcaaggaa 960
 tacaagtgca aggtctccaa caagggcctg gccagcagca tcgagaagac catcagcaag 1020
 gccaaaggcc agccacggga gccccaggctc tgcaaccctgc cacctagcca agaggagatg 1080
 accaagaacc aggtgtccct gagctgtgcc gtgaaaggct tctatcccag cgatatcgcc 1140
 gtggagtggg agagcaacgg ccagcccagag aacaactaca agaccacccc ccctgtgctg 1200
 gacagcgacg gcagcttctt cctggtttcc aagctgaccg tggacaagtc cagatggcag 1260
 gagggcaacg tcttcagctg ctccgtgatg cacgaggccc tgcacaacca ctacaccag 1320
 aagtccctga gcctgagcct gggcaag 1347

<210> 106
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 106
 Gln Ala Val Val Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly
 1 5 10 15
 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30
 Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45
 Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala

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

<210> 107
 <211> 645
 <212> DNA
 <213> Homo sapiens

<400> 107	
caggctgtgg	tcacacaaga gcctagcctg acagtgtctc ctggcggcac agtgaccctg 60
acctgtagat	cttctacagg cgccgtgacc accagcaact acgctaattg ggtgcagcag 120
aagccgggcc	aggctcctag aggactgatc ggcggaacaa acaagagagc cccttggaca 180
cccgccagat	tctctggatc tctgctcggc ggaaaggccg ctctgacaat cactggtgct 240
caggctgagg	acgaggccga gtactattgt gtgctgtggt acagcaacct gtgggtgttc 300
ggcggaggca	ccaaactgac agttctgggt cagcccaagg cggcgccctc ggtcactctg 360
ttcccgcctt	cctctgagga gcttcaagcc aacaaggcca cactggtgtg tctcataagt 420
gacttctatc	cgggagccgt gacagtggcc tggaaggcag atagcagccc cgtcaaggcg 480
ggagtggaga	ccaccacacc ctccaaacaa agcaacaaca agtacgcggc cagcagctac 540
ctgagcctga	cgcctgagca gtggaagtcc cacagaagct acagctgcca ggtcacgcat 600
gaaggaggca	ccgtggagaa gacagtggcc cctacagaat gttca 645

<210> 108
 <211> 452
 <212> PRT
 <213> Homo sapiens

<400> 108															
Glu	Val	Gln	Leu	Val	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	Asn	Thr	Tyr
			20					25					30		
Ala	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
	35					40					45				

Gly	Arg	Ile	Arg	Ser	Lys	Tyr	Asn	Asn	Tyr	Ala	Thr	Tyr	Tyr	Ala	Asp
50						55					60				
Ser	Val	Lys	Asp	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Lys	Asn	Ser
65					70					75					80
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Val	Tyr
				85					90					95	
Tyr	Cys	Val	Arg	His	Gly	Asn	Phe	Gly	Asn	Ser	Tyr	Val	Ser	Trp	Phe
			100					105						110	
Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr
		115					120					125			
Lys	Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser
		130				135					140				
Glu	Ser	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu
145					150					155					160
Pro	Val	Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His
				165					170					175	
Thr	Phe	Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser
			180					185					190		
Val	Val	Thr	Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys
		195					200					205			
Asn	Val	Asp	His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu
	210					215					220				
Ser	Lys	Tyr	Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu
225					230					235					240
Gly	Gly	Pro	Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu
				245					250					255	
Met	Ile	Ser	Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser
			260					265					270		
Gln	Glu	Asp	Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu
	275						280					285			
Val	His	Asn	Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr
	290					295					300				
Tyr	Arg	Val	Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn
305					310					315					320
Gly	Lys	Glu	Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Ala	Ser	Ser
				325					330					335	
Ile	Glu	Lys	Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln
			340					345					350		
Val	Tyr	Thr	Leu	Pro	Pro	Cys	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val
		355				360						365			
Ser	Leu	Trp	Cys	Leu	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val
	370					375					380				
Glu	Trp	Glu	Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro
385					390					395					400
Pro	Val	Leu	Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Lys	Leu	Thr
				405					410					415	
Val	Asp	Lys	Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val
			420					425					430		
Met	His	Glu	Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu
	435						440					445			

Ser Leu Gly Lys
450

<210> 109
<211> 1356
<212> DNA
<213> Homo sapiens

<400> 109
gaggtgcagc tgggtgaatc tggcggagga ctggttcagc ctggcggatc tctgagactg 60
tcttgtgccg ccagcggctt caccttcaac acctacgcta tgaactgggt ccgacaggcc 120
cctggcaaaag gactggaatg ggtgggaaga atcaggtcca agtacaacaa ctacgccacc 180
tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacagc 240
ctgtacctgc agatgaacag cctgaaaacc gaggacaccg ccgtgtacta ctgtgtcaga 300
cacggcaact tcggcaacag ctatgtgtct tggtttgctt actggggcca gggcacactg 360
gtcacagtta gctctgctag caccaagggc cccagcgtgt tccccctggc cccttgtagc 420
agaagcacca gcgagagcac agccgccctg ggctgcctgg tgaaggacta cttccccgag 480
cccgtgaccg tgtcctggaa cagcggcgct ctgaccagcg gcgtgcatac cttccccgcc 540
gtgctccaga gcagcggact gtactccctg agcagcgtgg tgaccgtgcc ttccagcagc 600
ctggggacca agacctacac ctgcaacgtg gaccacaagc ccagcaacac caaggtggac 660
aagagagtgg agagcaagta cggccctccc tgccccctt gccctgcccc cgagttcgag 720
ggcggaccta gcgtgttcct gttccccccc aagcccaagg acaccctgat gatcagcaga 780
acccccgagg tgacctgcgt ggtggtggac gtgtcccagg aggaccccga ggtccagttt 840
aattggtacg tggacggcgt ggaagtgcac aacgccaaaga ccaagcccag agaggagcag 900
ttcaacagca cctacagagt ggtgtccctg ctgaccgtgc tgcaccagga ctggctgaac 960
ggcaaggaat acaagtgaac ggtctccaac aagggcctgg ccagcagcat cgagaagacc 1020
atcagcaagg ccaagggcca gccacgggag cccaggtct acaccctgcc acctgtcaa 1080
gaggagatga ccaagaacca ggtgtccctg tgggtgtctg tgaaaggctt ctatcccagc 1140
gatatcgccg tggagtggga gagcaacggc cagcccgaga acaactacaa gaccaccccc 1200
cctgtgctgg acagcgacgg cagcttcttc ctgtactcca agctgaccgt ggacaagtcc 1260
agatggcagg agggcaacgt cttcagctgc tccgtgatgc acgaggccct gcacaaccac 1320
tacaccacga agtcccctgag cctgagcctg ggcaag 1356

<210> 110
<211> 214
<212> PRT
<213> Homo sapiens

<400> 110
Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
1 5 10 15
Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
20 25 30
Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
35 40 45
Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
65 70 75 80
Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Ile

				85					90					95			
Thr	Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys	Arg	Thr	Val	Ala	Ala		
			100					105					110				
Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys	Ser	Gly		
		115					120					125					
Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg	Glu	Ala		
	130					135					140						
Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu	Gln	Ser	Gly	Asn	Ser	Gln		
145					150					155					160		
Glu	Ser	Val	Thr	Glu	Gln	Asp	Ser	Lys	Asp	Ser	Thr	Tyr	Ser	Leu	Ser		
			165					170					175				
Ser	Thr	Leu	Thr	Leu	Ser	Lys	Ala	Asp	Tyr	Glu	Lys	His	Lys	Val	Tyr		
			180					185					190				
Ala	Cys	Glu	Val	Thr	His	Gln	Gly	Leu	Ser	Ser	Pro	Val	Thr	Lys	Ser		
		195					200					205					
Phe	Asn	Arg	Gly	Glu	Cys												
	210																

<210> 111
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 111

gagatcgtgc	tgacacagag	ccctggcaca	ctgtcactgt	ctccaggcga	gagagccaca	60
ctgagctgta	gagccagcca	gagcgtgtcc	tcttacctgg	cctgggtatca	gaagaagcct	120
ggacaggctc	ccagactgct	gatctacgac	gccagcaaca	gagccacagg	catccccgat	180
agattcagcg	gctctggctc	tggcaccgac	ttcaccctga	caatcagcag	actggaaccc	240
gaggacttcg	ccgtgtacta	ctgccagcag	agaagcaact	ggcccatcac	attcggccag	300
ggcaccaagc	tggaaatcaa	gcgaactgtg	gctgcaccat	ctgtcttcat	cttcccgccca	360
tctgatgagc	agttgaaatc	tggaaactgcc	tctgttgtgt	gcctgctgaa	taacttctat	420
cccagagagg	ccaaagtaca	gtggaagggtg	gataacgccc	tccaatcggg	taactcccag	480
gagagtgtca	cagagcagga	cagcaaggac	agcacctaca	gcctcagcag	caccctgacg	540
ctgagcaaag	cagactacga	gaaacacaaa	gtctacgcct	gcgaagtcac	ccatcagggc	600
ctgagctcgc	ccgtcacaaa	gagcttcaac	aggggagagt	gt		642

<210> 112
 <211> 449
 <212> PRT
 <213> Homo sapiens

<400> 112

Glu	Val	Gln	Leu	Leu	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Gly		
1			5					10					15				
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asn	Asp	Tyr		
		20						25				30					
Ala	Met	His	Trp	Val	Arg	Glu	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
		35					40					45					
Ser	Thr	Ile	Ser	Trp	Asn	Ser	Gly	Ser	Ile	Gly	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	Ile	Gln	Tyr	Gly	Asn	Tyr	Tyr	Tyr	Gly	Met	Asp	Tyr	Trp
			100					105					110		
Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro
		115					120					125			
Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr
	130					135					140				
Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr
145					150					155					160
Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro
			165						170					175	
Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr
		180						185					190		
Val	Pro	Ser	Ser	Ser	Leu	Gly	Thr	Lys	Thr	Tyr	Thr	Cys	Asn	Val	Asp
	195						200					205			
His	Lys	Pro	Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Ser	Lys	Tyr
	210					215					220				
Gly	Pro	Pro	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Phe	Glu	Gly	Gly	Pro
225					230					235					240
Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser
			245						250					255	
Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	Gln	Glu	Asp
		260						265					270		
Pro	Glu	Val	Gln	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn
		275					280					285			
Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Phe	Asn	Ser	Thr	Tyr	Arg	Val
	290					295				300					
Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu
305					310					315					320
Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Ala	Ser	Ser	Ile	Glu	Lys
			325						330					335	
Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Cys	Thr
		340						345					350		
Leu	Pro	Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Ser
		355					360					365			
Cys	Ala	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu
	370					375				380					
Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu
385					390					395					400
Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Val	Ser	Lys	Leu	Thr	Val	Asp	Lys
			405						410					415	
Ser	Arg	Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu
		420						425					430		
Ala	Leu	His	Asn	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly
		435					440					445			

Lys

<210> 113
 <211> 1347
 <212> DNA
 <213> Homo sapiens

<400> 113
 gaagtgcagc tgctggaatc tgggtggcggga gttgttcagc ctggcggctc tctgagactg 60
 tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgagaggcc 120
 cctggcaaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac 180
 gccgattccg tgaaggggcag attcaccatc tccagagaca acagcaagaa caccctgtac 240
 ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc 300
 cagtacggca actactacta cggcatggac tactggggcc agggaaacact ggttaccgtt 360
 agctctgcta gcaccaaggg cccagcgtg ttccccctgg ccccttgtag cagaagcacc 420
 agcgagagca cagccgccct gggctgcctg gtgaaggact acttccccga gcccgtagacc 480
 gtgtcctgga acagcggcgc tctgaccagc ggcgtgcata ctttccccgc cgtgctccag 540
 agcagcggac tgtactccct gagcagcgtg gtgaccgtgc cttccagcag cctgggcacc 600
 aagacctaca cctgcaacgt ggaccacaag cccagcaaca ccaagggtgga caagagagtg 660
 gagagcaagt acggccctcc ctgccccctt tgccctgccc ccgagttcga gggcggacct 720
 agcgtgttcc tgttcccccc caagcccaag gacaccctga tgatcagcag aacccccgag 780
 gtgacctgcg tgggtggtgga cgtgtcccag gaggaccccg aggtccagtt taattggtac 840
 gtggacggcg tgggaagtga taacgccaa accaagccca gagaggagca gttcaacagc 900
 acctacagag tgggtgtccgt gctgaccgtg ctgcaccagg actggctgaa cggcaaggaa 960
 tacaagtga aggtctccaa caagggcctg gccagcagca tcgagaagac catcagcaag 1020
 gccaaaggcc agccacggga gccccaggct tgaccctgc cacctagcca agaggagatg 1080
 accaagaacc aggtgtccct gagctgtgcc gtgaaaggct tctatcccag cgatatcgcc 1140
 gtggagtggg agagcaacgg ccagcccag aacaactaca agaccacccc ccctgtgctg 1200
 gacagcgacg gcagcttctt cctggtttcc aagctgaccg tggacaagtc cagatggcag 1260
 gagggcaacg tcttcagctg ctccgtgatg cacgaggccc tgcacaacca ctacaccag 1320
 aagtccctga gcctgagcct gggcaag 1347

<210> 114
 <211> 215
 <212> PRT
 <213> Homo sapiens

<400> 114
 Gln Ala Val Val Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly
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 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30
 Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45
 Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80
 Gln Ala Glu Asp Glu Ala Glu Tyr Tyr Cys Val Leu Trp Tyr Ser Asn
 85 90 95
 Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gln Pro

	100		105		110										
Lys	Ala	Ala	Pro	Ser	Val	Thr	Leu	Phe	Pro	Pro	Ser	Ser	Glu	Glu	Leu
	115		120		125										
Gln	Ala	Asn	Lys	Ala	Thr	Leu	Val	Cys	Leu	Ile	Ser	Asp	Phe	Tyr	Pro
	130		135		140										
Gly	Ala	Val	Thr	Val	Ala	Trp	Lys	Ala	Asp	Ser	Ser	Pro	Val	Lys	Ala
145			150		155										160
Gly	Val	Glu	Thr	Thr	Thr	Pro	Ser	Lys	Gln	Ser	Asn	Asn	Lys	Tyr	Ala
			165		170									175	
Ala	Ser	Ser	Tyr	Leu	Ser	Leu	Thr	Pro	Glu	Gln	Trp	Lys	Ser	His	Arg
			180		185									190	
Ser	Tyr	Ser	Cys	Gln	Val	Thr	His	Glu	Gly	Ser	Thr	Val	Glu	Lys	Thr
	195		200		205										
Val	Ala	Pro	Thr	Glu	Cys	Ser									
	210		215												

<210> 115
 <211> 645
 <212> DNA
 <213> Homo sapiens

<400> 115
 caggctgtgg tcacacaaga gcctagcctg acagtgtctc ctggcggcac agtgaccctg 60
 acctgtagat cttctacagg cgccgtgacc accagcaact acgctaattg ggtgcaggag 120
 aagcccgagg aggctcctag aggactgac ggccggaacaa acaagagagc cccttggaca 180
 cccgccagat tctctggatc tctgctcggc ggaaaggccg ctctgacaat cactggtgct 240
 caggctgagg acgaggccga gtactattgt gtgctgtggt acagcaacct gtgggtgttc 300
 ggccggaggca ccaaactgac agttctgggt cagcccaagg cggcgccctc ggtcactctg 360
 ttcccgccct cctctgagga gcttcaagcc aacaaggcca cactggtgtg tctcataagt 420
 gacttctatc cgggagccgt gacagtggcc tggaaggcag atagcagccc cgtcaaggcg 480
 ggagtggaga ccaccacacc ctccaaacaa agcaacaaca agtacgcggc cagcagctac 540
 ctgagcctga cgcctgagca gtggaagtcc cacagaagct acagctgcca ggtcacgcat 600
 gaaggagca ccgtggagaa gacagtggcc cctacagaat gttca 645

<210> 116
 <211> 452
 <212> PRT
 <213> Homo sapiens

<400> 116
 Glu Val Gln Leu Val 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 Asn Thr Tyr
 20 25 30
 Ala Met Asn Trp Val Arg Lys Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp
 50 55 60
 Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Ser
 65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
 100 105 110
 Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr
 115 120 125
 Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
 130 135 140
 Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 145 150 155 160
 Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 165 170 175
 Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
 180 185 190
 Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys
 195 200 205
 Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
 210 215 220
 Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu
 225 230 235 240
 Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 245 250 255
 Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 260 265 270
 Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu
 275 280 285
 Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr
 290 295 300
 Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 305 310 315 320
 Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Ala Ser Ser
 325 330 335
 Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 340 345 350
 Val Tyr Thr Leu Pro Pro Cys Gln Glu Glu Met Thr Lys Asn Gln Val
 355 360 365
 Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 370 375 380
 Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 385 390 395 400
 Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 405 410 415
 Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val
 420 425 430
 Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 435 440 445
 Ser Leu Gly Lys
 450

<211> 1356
 <212> DNA
 <213> Homo sapiens

<400> 117
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 tcttgtgccg ccagcggctt caccttcaac acctacgcta tgaactgggt ccgaaaggcc 120
 cctggcaaag gactggaatg ggtgggaaga atcaggtcca agtacaacaa ctacgccacc 180
 tactacgccg acagcgtgaa ggacagattc accatcagca gggacgacag caagaacagc 240
 ctgtacctgc agatgaacag cctgaaaacc gaggacaccg ccgtgtacta ctgtgtcaga 300
 cacggcaact tcggcaacag ctatgtgtct tggtttgcct actggggcca gggcacactg 360
 gtcacagtta gctctgctag caccaagggc cccagcgtgt tccccctggc cccttgcagc 420
 agaagcacca gcgagagcac agccgccctg ggctgcctgg tgaaggacta cttccccgag 480
 cccgtgaccg tgtcctggaa cagcggcgct ctgaccagcg gcgtgcatac cttccccgcc 540
 gtgctccaga gcagcggact gtactccctg agcagcgtgg tgaccgtgcc ttccagcagc 600
 ctggggacca agacctacac ctgcaacgtg gaccacaagc ccagcaacac caaggtggac 660
 aagagagtgg agagcaagta cggccctccc tgccccctt gccctgcccc cgagttcgag 720
 ggcggaccta gcgtgttcct gttccccccc aagcccaagg acaccctgat gatcagcaga 780
 acccccgagg tgacctgcgt ggtggtggac gtgtcccagg aggaccccga ggtccagttt 840
 aattggtacg tggacggcgt ggaagtgcac aacgccaaga ccaagcccag agaggagcag 900
 ttcaacagca cctacagagt ggtgtccgtg ctgaccgtgc tgcaccagga ctggctgaac 960
 ggcaaggaat acaagtcaa ggtctccaac aagggcctgg ccagcagcat cgagaagacc 1020
 atcagcaagg ccaagggccca gccacgggag ccccaggtct acaccctgcc accttgtcaa 1080
 gaggagatga ccaagaacca ggtgtccctg tgggtgtctgg tgaaaggctt ctatcccagc 1140
 gatatcgccg tggagtggga gagcaacggc cagcccagaga acaactacaa gaccaccccc 1200
 cctgtgtctg acagcgacgg cagcttcttc ctgtactcca agctgaccgt ggacaagtcc 1260
 agatggcagg agggcaacgt cttcagctgc tccgtgatgc acgaggccct gcacaaccac 1320
 tacaccaga agtccttgag cctgagcctg ggcaag 1356

<210> 118
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 118
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
 1 5 10 15
 Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Tyr
 20 25 30
 Leu Ala Trp Tyr Gln Lys Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 35 40 45
 Tyr Asp Ala Ser Asn Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
 65 70 75 80
 Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Arg Ser Asn Trp Pro Ile
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
 100 105 110
 Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Lys Lys Leu Lys Ser Gly

115	120	125
Thr Ala Ser Val Val Cys	Leu Leu Asn Asn Phe	Tyr Pro Arg Glu Ala
130	135	140
Lys Val Gln Trp Lys Val	Asp Asn Ala Leu Gln	Ser Gly Asn Ser Gln
145	150	155
Glu Ser Val Thr Glu Gln	Asp Ser Lys Asp Ser	Thr Tyr Ser Leu Ser
165	170	175
Ser Thr Leu Thr Leu Ser	Lys Ala Asp Tyr Glu	Lys His Lys Val Tyr
180	185	190
Ala Cys Glu Val Thr His	Gln Gly Leu Ser Ser	Pro Val Thr Lys Ser
195	200	205
Phe Asn Arg Gly Glu Cys		
210		

<210> 119
 <211> 642
 <212> DNA
 <213> Homo sapiens

<400> 119
 gagatcgtgc tgacacagag ccctggcaca ctgtcactgt ctccaggcga gagagccaca 60
 ctgagctgta gagccagcca gagcgtgtcc tcttacctgg cctggatatca gaagaagcct 120
 ggacaggctc ccagactgct gatctacgac gccagcaaca gagccacagg catccccgat 180
 agattcagcg gctctggctc tggcaccgac ttcaccctga caatcagcag actggaaccc 240
 gaggacttcg ccgtgtacta ctgccagcag agaagcaact ggccccatcac attcggccag 300
 ggcaccaagc tggaaatcaa gcgaactgtg gctgcacccat ctgtcttcat cttcccgcga 360
 tctgataaga aattgaaatc tggaactgcc tctgtttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 120
 <211> 449
 <212> PRT
 <213> Homo sapiens

<400> 120
 Glu Val Gln Leu Leu Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr
 20 25 30
 Ala Met His Trp Val Arg Glu Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Thr Ile Ser Trp Asn Ser Gly Ser Ile Gly 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 Ile Gln Tyr Gly Asn Tyr Tyr Tyr Gly Met Asp Tyr Trp
 100 105 110
 Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 115 120 125
 Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr
 130 135 140
 Ala Ala Leu Gly Cys Leu Val Glu Asp Tyr Phe Pro Glu Pro Val Thr
 145 150 155 160
 Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 165 170 175
 Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 180 185 190
 Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp
 195 200 205
 His Lys Pro Ser Asn Thr Lys Val Asp Glu Arg Val Glu Ser Lys Tyr
 210 215 220
 Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Glu Gly Gly Pro
 225 230 235 240
 Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 245 250 255
 Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp
 260 265 270
 Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
 275 280 285
 Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val
 290 295 300
 Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
 305 310 315 320
 Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Ala Ser Ser Ile Glu Lys
 325 330 335
 Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr
 340 345 350
 Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser
 355 360 365
 Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
 370 375 380
 Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
 385 390 395 400
 Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp Lys
 405 410 415
 Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser Val Met His Glu
 420 425 430
 Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Leu Gly
 435 440 445
 Lys

<210> 121
 <211> 1347
 <212> DNA

<213> Homo sapiens

<400> 121

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gaagtgcagc tgctggaatc tgggtggcgga gttgttcagc ctggcggctc tctgagactg      60
tcttgtgctg ccagcggctt caccttcaac gactacgcta tgcactgggt ccgagaggcc      120
cctggcaaag gacttgaatg ggtgtccacc atcagctgga acagcggctc tatcggctac      180
gccgattccg tgaagggcag attcaccatc tccagagaca acagcaagaa caccctgtac      240
ctgcagatga acagcctgag agccgaggac accgccgtgt actactgtgc caaggacatc      300
cagtacggca actactacta cggcatggac tactggggcc agggaaacact ggttaccgtt      360
agctctgcta gcaccaaggg ccccgagcgtg ttccccctgg ccccttgtag cagaagcacc      420
agcgagagca cagccgccct gggctgcctg gtggaggact acttccccga gcccgtgacc      480
gtgtcctgga acagcggcgc tctgaccagc ggcgtgcata ctttccccgc cgtgctccag      540
agcagcggac tgtactccct gagcagcgtg gtgaccgtgc cttccagcag cctgggcacc      600
aagacctaca cctgcaacgt ggaccacaag cccagcaaca ccaaggtgga cgagagagtg      660
gagagcaagt acggccctcc ctgccccctt tgccctgccc ccgagttcga aggcggacct      720
agcgtgttcc tgttcccccc caagcccaag gacaccctga tgatcagcag aacccccgag      780
gtgacctgcg tgggtgtgga cgtgtcccag gaggaccccg aggtccagtt taattggtac      840
gtggacggcg tggaaagtga taacgccaaag accaagccca gagaggagca gttcaacagc      900
acctacagag tgggtgtccgt gctgaccgtg ctgcaccagg actggctgaa cggcaaggaa      960
tacaagtga aggtctccaa caagggcctg gccagcagca tcgagaagac catcagcaag     1020
gccaaaggcc agccacggga gccccaggct tgcaccctgc cacctagcca agaggagatg     1080
accaagaacc aggtgtccct gagctgtgcc gtgaaaggct tctatcccag cgatatcgcc     1140
gtggagtggg agagcaacgg ccagcccgag aacaactaca agaccacccc ccctgtgctg     1200
gacagcgacg gcagcttctt cctggtttcc aagctgaccg tggacaagtc cagatggcag     1260
gagggcaacg tcttcagctg ctccgtgatg cacgaggccc tgcacaacca ctacaccag     1320
aagtccctga gcctgagcct gggcaag                                     1347

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<210> 122

<211> 109

<212> PRT

<213> Mus musculus

<400> 122

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Gln Ala Val Val Thr Gln Glu Ser Ala Leu Thr Thr Ser Pro Gly Glu
1          5          10          15
Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
20         25         30
Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Asp His Leu Phe Thr Gly
35         40         45
Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg Phe
50         55         60
Ser Gly Ser Leu Ile Gly Asp Lys Ala Ala Leu Thr Ile Thr Gly Ala
65         70         75         80
Gln Thr Glu Asp Glu Ala Ile Tyr Phe Cys Ala Leu Trp Tyr Ser Asn
85         90         95
Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
100        105

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<210> 123

<211> 125

<212> PRT

<213> Mus musculus

<400> 123

Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val	Gln	Pro	Lys	Gly
1				5					10					15	
Ser	Leu	Lys	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Asn	Thr	Tyr
			20					25					30		
Ala	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val
		35					40					45			
Ala	Arg	Ile	Arg	Ser	Lys	Tyr	Asn	Asn	Tyr	Ala	Thr	Tyr	Tyr	Ala	Asp
	50					55					60				
Ser	Val	Lys	Asp	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Gln	Ser	Ile
65					70					75				80	
Leu	Tyr	Leu	Gln	Met	Asn	Asn	Leu	Lys	Thr	Glu	Asp	Thr	Ala	Met	Tyr
				85					90					95	
Tyr	Cys	Val	Arg	His	Gly	Asn	Phe	Gly	Asn	Ser	Tyr	Val	Ser	Trp	Phe
			100					105					110		
Ala	Tyr	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser			
		115					120					125			