

SEQUENCE LISTING

<110> Harbour Biomed (Shanghai) Co., Ltd

<120> ANTIBODIES BINDING CTLA-4 AND USES THEREOF

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<150> US62/607917

<151> 2017-12-20

<160> 200

<170> PatentIn version 3.5

<210> 1

<211> 1113

<212> DNA

<213> Homo Sapiens

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<210> 2
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 <212> PRT
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<400> 2

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Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Ile Gly Gly Gly Glu
 20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
 35 40 45

Asn Val Ser Lys Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
 50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Gly Thr Glu Tyr
 65 70 75 80

Ala Ala Ser Val Lys Gly Arg Phe Asn Ile Ser Arg Asp Ser Ser Lys
 85 90 95

Asn Met Leu Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp Thr Ala
 100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro Arg Pro His Gly Thr Asp Ile
 115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser Cys
 130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 145 150 155 160

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met

165

170

175

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 195 200 205

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 210 215 220

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 245 250 255

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 260 265 270

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
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Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 355 360 365

Pro Gly Lys
 370

<210> 3
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<212> PRT
<213> Homo Sapiens

<400> 3

Glu Val Gln Leu Val Glu Ile Gly Gly Gly Glu Ile Gln Pro Gly Gly
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Asn Val Ser Lys Asn
20 25 30

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

Ser Val Ile Tyr Ser Gly Gly Gly Thr Glu Tyr Ala Ala Ser Val Lys
50 55 60

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

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

Arg Ala Val Pro Arg Pro His Gly Thr Asp Ile Trp Gly Gln Gly Thr
100 105 110

Met Val Thr Val Ser Ser
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<210> 4
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<212> PRT
<213> Homo Sapiens

<400> 4

Gly Phe Asn Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 5
<211> 16
<212> PRT

<213> Homo Sapiens

<400> 5

Val	Ile	Tyr	Ser	Gly	Gly	Gly	Thr	Glu	Tyr	Ala	Ala	Ser	Val	Lys	Gly
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<213> Homo Sapiens

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<210> 7

<211> 1116

<212> DNA

<213> Homo Sapiens

<400> 7

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<210> 8
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 8

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Gly Ser Thr Gly Ser Glu Val Gln Leu Ala Glu Thr Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
35 40 45

Asn Val Ser Lys Asn Tyr Met Ser Trp Val Arg Gln Val Pro Gly Lys
50 55 60

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

Ala Asp Ser Val Lys Gly Arg Phe Ile Leu Ser Arg Asp Asn Ser Asp
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu

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

Ser Pro Gly Lys
370

<210> 9
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 9

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 10
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 10

Gly Phe Asn Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 11
<211> 16
<212> PRT
<213> Homo Sapiens)

<400> 11

Val	Val	Tyr	Ser	Gly	Gly	Ser	Lys	Thr	Tyr	Ala	Asp	Ser	Val	Lys	Gly
1				5				10						15	

<210> 12
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 12

Ala	Val	Pro	His	Ser	Pro	Ser	Ser	Phe	Asp	Ile
1				5				10		

<210> 13
<211> 1116
<212> DNA
<213> Homo Sapiens)

<400> 13

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<210> 14
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 <212> PRT
 <213> Homo Sapiens)

<400> 14

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
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Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Glu	Glu	Thr	Gly	Gly	Asp	Leu
			20					25					30		

Ile	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Thr	Ala	Ser	Gly	Phe
		35					40					45			

Asn	Val	Ser	Arg	Ile	Tyr	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys
	50					55					60				

Gly	Leu	Glu	Trp	Val	Ser	Val	Ile	Tyr	Ser	Gly	Gly	Ser	Ile	Tyr	Tyr
65					70					75				80	

Ala	Asp	Ser	Val	Arg	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Ser	Ser	Thr
				85					90					95	

Asn	Thr	Val	Phe	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Ser	Ala
			100					105					110		

Val	Tyr	Tyr	Cys	Ala	Arg	Ala	Val	Pro	Ser	Ala	Pro	Ser	Ser	Phe	Asp
		115					120					125			

Ile	Trp	Gly	Gln	Gly	Thr	Met	Val	Thr	Val	Ser	Ser	Glu	Pro	Lys	Ser
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130

135

140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
 145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 15
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 15

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

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

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

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

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

Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 16
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<212> PRT
<213> Homo Sapiens

<400> 16

Gly Phe Asn Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 17
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 17

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Arg Gly
1 5 10 15

<210> 18
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<212> PRT
<213> Homo Sapiens

<400> 18

Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile
1 5 10

<210> 19
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<212> DNA
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<210> 20
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 <213> Homo Sapiens

<400> 20

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5					10					15	

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu
			20					25					30		

Val	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe
		35					40					45			

Thr	Phe	Ser	Asn	Tyr	Trp	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys
	50					55					60				

Gly	Leu	Val	Trp	Val	Ser	Arg	Ile	Asn	Ser	Asp	Gly	Ser	Asn	Thr	Thr
65					70					75				80	

Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ala
				85					90					95	

Lys	Asn	Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr
			100					105					110		

Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Trp	Phe	Gly	Glu	His	Tyr	Tyr	Gly	Met
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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

Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser
340 345 350

Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
355 360 365

Leu Ser Pro Gly Lys
370

<210> 21
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<212> PRT
<213> Homo Sapiens

<400> 21

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

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 22
<211> 10

<212> PRT
<213> Homo Sapiens

<400> 22

Gly Phe Thr Phe Ser Asn Tyr Trp Met His
1 5 10

<210> 23
<211> 17
<212> PRT
<213> Homo Sapiens

<400> 23

Arg Ile Asn Ser Asp Gly Ser Asn Thr Thr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 24
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<213> Homo Sapiens

<400> 24

Trp Phe Gly Glu His Tyr Tyr Gly Met Asp Val
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<210> 25
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<212> DNA
<213> Homo Sapiens

<400> 25
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gcagactccg tgaagggccg attcatcatc tccagagaca attccaaca cagctatat 300
cttcaaatga acggtctgag agccgaggac acggccgtat attactgtgc gagagccgtc 360
ccacatgccc caagtgtttt tgacatctgg ggccagggga caatgggtcac cgtctcttca 420

gagcccaa	attgtgacaa	aactcacaca	tgcccaccgt	gcccagcacc	tgaactcctg	480
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accctgagg	tcacatgcgt	ggtggtggac	gtgagccacg	aagaccctga	ggtcaagttc	600
aactggtacg	tggacggcgt	ggaggtgcat	aatgccaaga	caaagccgcg	ggaggagcag	660
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cccgtgctgg	actccgacgg	ctccttcttc	ctctacagca	agctcaccgt	ggacaagagc	1020
aggtggcagc	agggaacgt	cttctcatgc	tccgtgatgc	atgaggctct	gcacaaccac	1080
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<210> 26
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 26

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5				10					15		

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Val	Glu	Thr	Gly	Gly	Gly	Leu
			20				25					30			

Ile	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Val	Ser	Gly	Phe
		35				40					45				

Thr	Val	Arg	Asn	Asn	Tyr	Met	Ser	Trp	Ala	Arg	Gln	Val	Pro	Gly	Lys
	50				55					60					

Gly	Leu	Glu	Trp	Val	Ser	Val	Ile	Tyr	Ser	Gly	Gly	Ser	Ile	Thr	Tyr
65					70				75					80	

Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Ile	Ile	Ser	Arg	Asp	Asn	Ser	Asn
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

85

90

95

Asn Thr Leu Tyr Leu Gln Met Asn Gly Leu Arg Ala Glu Asp Thr Ala
 100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp
 115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
 130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
 145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 27
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 27

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 28
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 28

Gly Phe Thr Val Arg Asn Asn Tyr Met Ser
1 5 10

<210> 29
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 29

Val Ile Tyr Ser Gly Gly Ser Ile Thr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 30
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 30

Ala Val Pro His Ala Pro Ser Ala Phe Asp Ile
1 5 10

<210> 31
<211> 1113
<212> DNA
<213> Homo Sapiens

<400> 31
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gctccaggga aggggctgga gtgggtcgca gtaatttata gcggtggtgg tatagagtac 240
gtagactccg tgaagggccg attcaccatc tccagagaca atgccaacaa cacgctgtat 300

cttcaaatga gaagcctgag aaccgaagac tcggccgtat attactgtgc gcggggccatt 360
 cccagacccc atgggttcgga tatctggggc caagggacaa tggtcaccgt ctcttcagag 420
 cccaaatctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg 480
 ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc 540
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 aacagcacgt accgggtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc 720
 aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc 780
 tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag 840
 gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac 900
 atgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc 960
 gtgctggact ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg 1020
 tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac 1080
 acgcagaaga gcctctccct gtctccgggt aaa 1113

<210> 32
 <211> 371
 <212> PRT
 <213> Homo Sapiens

<400> 32

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu
 20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Leu
 35 40 45

Asn Val Ser Arg His Tyr Leu Ser Trp Val Arg Gln Ala Pro Gly Lys
 50 55 60

Gly Leu Glu Trp Val Ala Val Ile Tyr Ser Gly Gly Gly Ile Glu Tyr

65

70

75

80

Val Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Asn
85 90 95

Asn Thr Leu Tyr Leu Gln Met Arg Ser Leu Arg Thr Glu Asp Ser Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Ile Pro Arg Pro His Gly Ser Asp Ile
115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser Cys
130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
145 150 155 160

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
165 170 175

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
195 200 205

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
210 215 220

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
245 250 255

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
260 265 270

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
290 295 300

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
355 360 365

Pro Gly Lys
370

<210> 33
<211> 118
<212> PRT
<213> Homo Sapiens

<400> 33

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Leu Asn Val Ser Arg His
20 25 30

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

Ala Val Ile Tyr Ser Gly Gly Gly Ile Glu Tyr Val Asp Ser Val Lys
50 55 60

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

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

Arg Ala Ile Pro Arg Pro His Gly Ser Asp Ile Trp Gly Gln Gly Thr
100 105 110

Met Val Thr Val Ser Ser
115

<210> 34
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 34

Gly Leu Asn Val Ser Arg His Tyr Leu Ser
1 5 10

<210> 35
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 35

Val Ile Tyr Ser Gly Gly Gly Ile Glu Tyr Val Asp Ser Val Lys Gly
1 5 10 15

<210> 36
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 36

Ala Ile Pro Arg Pro His Gly Ser Asp Ile
1 5 10

<210> 37
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 37

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ctctcctgtg cagcctctgg gttcaccgtc agtagcaact acatgagctg ggtccgccag 180

gctccaggggaggggctgga gtgggtctca gttatttata gcggtggtag cacatactac	240
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	300
cttcaaata gcaacctgac cgccgaggac acggccgtgt attactgtgc gagagccgtt	360
ccccactccc ccagtgcctt tgataggtgg ggccagggaa ccctggtcac cgtctcttca	420
gagcccaaatt cttgtgacaa aactcacaca tgcccaccgt gccagcacc tgaactcctg	480
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aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	780
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gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	900
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960
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tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 38
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 38

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5				10					15		

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Val	Glu	Thr	Gly	Gly	Gly	Leu
			20				25					30			

Ile	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe
		35					40					45			

Thr Val Ser Ser Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys

50

55

60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr
 65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
 85 90 95

Asn Thr Leu Tyr Leu Gln Met Ser Asn Leu Thr Ala Glu Asp Thr Ala
 100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ala Phe Asp
 115 120 125

Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Glu Pro Lys Ser
 130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
 145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 39
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 39

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 40
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 40

Gly Phe Thr Val Ser Ser Asn Tyr Met Ser
1 5 10

<210> 41
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 41

Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 42
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 42

Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg
1 5 10

<210> 43
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 43
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ctctcctgta cagcctctgg gtttaacgtc agtagaatct acatgagctg ggtccgccag	180
gctccaggga aggggctgga gtgggtctca gtgatttata gcggtggaag tatatattac	240
gcagattccg tgaggggccg atttaccatc tccagagaca gttccacgaa cacggtgtat	300
cttcaaatga acagcctgag agccgaggac tcggccgtgt attactgtgc gagagccgtc	360
ccacatgccc ctagtaattt tgataaatgg ggccaaggga caagggtcac cgtctcttca	420
gagcccaaat cttgtgacaa aactcacaca tgcccaccgt gcccagcacc tgaactcctg	480
gggggaccgt cagtcttcct cttccccca aaaccaagg acaccctcat gatctcccgg	540
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	600
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagccccat cgagaaaacc	780
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tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 44
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 44

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5				10					15		

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Glu	Glu	Thr	Gly	Gly	Asp	Leu
			20				25					30			

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe

35

40

45

Asn Val Ser Arg Ile Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
 50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr
 65 70 75 80

Ala Asp Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Thr
 85 90 95

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala
 100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp
 115 120 125

Lys Trp Gly Gln Gly Thr Arg Val Thr Val Ser Ser Glu Pro Lys Ser
 130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
 145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 45
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 45

Glu Val Gln Leu Glu Glu Thr Gly Gly Asp Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp Lys Trp Gly Gln Gly
100 105 110

Thr Arg Val Thr Val Ser Ser
115

<210> 46
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 46

Gly Phe Asn Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 47
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 47

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Arg Gly
1 5 10 15

<210> 48
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 48

Ala Val Pro His Ala Pro Ser Asn Phe Asp Lys
1 5 10

<210> 49
<211> 1125
<212> DNA

<213> Homo Sapiens

<400> 49

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ctctcctgtg tagcctctgg attcaccttc agtaactatt ggatgcactg ggtccgccaa      180
attccagggga aggggatggg gtggatctca gaaattaaca gtgacgggaa taggacaggc      240
tatgcggact ccgtaaaggg ccgattcacc atctccagag acaacgccaa gaagatgttg      300
tatctgcaaa tgaacagtct gagagccgag gacacggctg tttattattg tgcaagaaac      360
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gtctcttcag agcccaaadc ttgtgacaaa actcacacat gcccaccgtg cccagcacct      480
gaactcctgg ggggaccgtc agtcttcctc ttcccccaa aaccaagga caccctcatg      540
atctcccgga cccctgaggt cacatgcgtg gtggtggacg tgagccacga agaccctgag      600
gtcaagttca actggtacgt ggacggcgtg gaggtgcata atgccaagac aaagccgcgg      660
gaggagcagt acaacagcac gtaccgggtg gtcagcgtcc tcaccgtcct gcaccaggac      720
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gagaaaacca tctccaaagc caaagggcag ccccgagaac cacaggtgta caccctgccc      840
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<210> 50

<211> 375

<212> PRT

<213> Homo Sapiens

<400> 50

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Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1          5          10          15
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Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu
```

20

25

30

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Val Ala Ser Gly Phe
 35 40 45

Thr Phe Ser Asn Tyr Trp Met His Trp Val Arg Gln Ile Pro Gly Lys
 50 55 60

Gly Met Val Trp Ile Ser Glu Ile Asn Ser Asp Gly Asn Arg Thr Gly
 65 70 75 80

Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala
 85 90 95

Lys Lys Met Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr
 100 105 110

Ala Val Tyr Tyr Cys Ala Arg Asn Trp Gly Ser Gly Pro His His Thr
 115 120 125

Ala Phe Asp Gly Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu
 130 135 140

Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 145 150 155 160

Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 165 170 175

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 180 185 190

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 195 200 205

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
 210 215 220

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 225 230 235 240

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
245 250 255

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
260 265 270

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
275 280 285

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
290 295 300

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
305 310 315 320

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
325 330 335

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
340 345 350

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
355 360 365

Leu Ser Leu Ser Pro Gly Lys
370 375

<210> 51
<211> 122
<212> PRT
<213> Homo Sapiens

<400> 51

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 Val Ala Ser Gly Phe Thr Phe Ser Asn Tyr
20 25 30

Trp Met His Trp Val Arg Gln Ile Pro Gly Lys Gly Met Val Trp Ile
35 40 45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Lys Met 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 Arg Asn Trp Gly Ser Gly Pro His His Thr Ala Phe Asp Gly Trp
100 105 110

Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 52
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 52

Gly Phe Thr Phe Ser Asn Tyr Trp Met His
1 5 10

<210> 53
<211> 17
<212> PRT
<213> Homo Sapiens

<400> 53

Glu Ile Asn Ser Asp Gly Asn Arg Thr Gly Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 54
<211> 13
<212> PRT
<213> Homo Sapiens

<400> 54

Asn Trp Gly Ser Gly Pro His His Thr Ala Phe Asp Gly
 1 5 10

<210> 55
 <211> 1116
 <212> DNA
 <213> Homo Sapiens

<400> 55
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 ctctcctgta cagcctctgg gtttaccgtc agtagaatct acatgagctg ggtccgccag 180
 gctccaggga aggggctgga gtgggtctca gtgatttata gcggtggaag tatatattac 240
 gcagattccg tgagggggccg atttaccatc tccagagaca gttccacgaa cacggtgttt 300
 cttcaaatga acagcctgag agccgaggac tcggccgtgt attactgtgc gagagccgtc 360
 ccaagtgccc ctagttcttt tgatatctgg ggccaaggga caatggtcac cgtctcttca 420
 gagcccaaat cttgtgacaa aactcacaca tgcccaccgt gccagcacc tgaactcctg 480
 gggggaccgt cagtcttctt cttccccca aaaccaagg acaccctcat gatctcccgg 540
 acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc 600
 aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag 660
 tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 720
 ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc 780
 atctccaaag ccaaaggga gccccgagaa ccacaggtgt acaccctgcc cccatcccgg 840
 gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc 900
 gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct 960
 cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc 1020
 aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1080
 tacacgcaga agagcctctc cctgtctccg ggtaaa 1116

<210> 56
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 56

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Glu Glu Thr Gly Gly Asp Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe
35 40 45

Thr Val Ser Arg Ile Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr
65 70 75 80

Ala Asp Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Thr
85 90 95

Asn Thr Val Phe Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 57
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 57

Glu Val Gln Leu Glu Glu Thr Gly Gly Asp Leu Ile Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Val Ser Arg Ile
20 25 30

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

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

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

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

Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 58
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 58

Gly Phe Thr Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 59
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 59

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Arg Gly
1 5 10 15

<210> 60
<211> 11

<212> PRT
<213> Homo Sapiens

<400> 60

Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile
1 5 10

<210> 61
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 61

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ctctcctgtg ccgcctctgg gtttaccgtc agtagaatct acatgagctg ggtccgccag	180
gctccaggga aggggctgga gtgggtctca gtgatttata gcggtggaag tatatattac	240
gcagattccg tgaagggccg atttaccatc tccagagaca gttccaagaa cacggtgtac	300
cttcaaatac acagcctgag agccgaggac accgccgtgt attactgtgc gagagccgtc	360
ccaagtggcc ctagttcttt tgatatctgg ggccaaggga caatggtcac cgtctcttca	420
gagcccaaata cttgtgacaa aactcacaca tgcccaccgt gccagcacc tgaactcctg	480
gggggaccgt cagtcttcct cttccccca aaaccaagg acaccctcat gatctcccgg	540
acccttgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	600
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	780
atctccaaag ccaaagggca gccccgagaa ccacaggtgt acaccctgcc cccatcccgg	840
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	900
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960
cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc	1020
aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1080
tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 62
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 62

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Val Ser Arg Ile Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Lys
85 90 95

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 63
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 63

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Arg Ile
20 25 30

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

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

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

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

Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 64

<211> 10

<212> PRT

<213> Homo Sapiens

<400> 64

Gly Phe Thr Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 65

<211> 16

<212> PRT

<213> Homo Sapiens

<400> 65

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 66
 <211> 11
 <212> PRT
 <213> Homo Sapiens

<400> 66

Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile
 1 5 10

<210> 67
 <211> 1116
 <212> DNA
 <213> Homo Sapiens

<400> 67

atggagaccg acaccctgct gctgtgggtg ctgctgctgt gggtgcccgg atccaccggc	60
tctgaggtgc agctgggtgga gactggagga gggctgatcc agccgggggg gtccctgaga	120
ctctcctgtg cagtctctgg gttcaccgtc agaaacaact acatgagctg ggcccgccag	180
gttccaggga agggactgga gtgggtctca gttatttata gcggtgggag tataacctac	240
gcagactccg tgaagggccg attcatcatc tccagagaca attccaagaa cacgctatat	300
cttcaaatga acggtctgag agccgaggac acggccgtat attactgtgc gagagccgtc	360
ccacatgccc caagtgcttt tgacatctgg ggccagggga caatggtcac cgtctcttca	420
gagcccaaatt cttgtgacaa aactcacaca tgcccaccgt gcccagcacc tgaactcctg	480
gggggaccgt cagtcttctt cttccccca aaaccaagg acaccctcat gatctcccgg	540
acccttgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	600
aactggtacg tggacggcgt ggaggtgcat aatgccaaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	780
atctccaaag ccaaagggca gccccgagaa ccacaggtgt acaccctgcc cccatcccgg	840
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	900
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960
cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc	1020
aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1080

tacacgcaga agagcctctc cctgtctccg ggtaaa

1116

<210> 68
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 68

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
35 40 45

Thr Val Arg Asn Asn Tyr Met Ser Trp Ala Arg Gln Val Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Thr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Lys
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Gly Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 69

<211> 119
<212> PRT
<213> Homo Sapiens

<400> 69

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 70
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 70

Gly Phe Thr Val Arg Asn Asn Tyr Met Ser
1 5 10

<210> 71
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 71

Val Ile Tyr Ser Gly Gly Ser Ile Thr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 72

<211> 11

<212> PRT

<213> Homo Sapiens

<400> 72

Ala Val Pro His Ala Pro Ser Ala Phe Asp Ile
1 5 10

<210> 73

<211> 1116

<212> DNA

<213> Homo Sapiens

<400> 73

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tctgaggtgc agctggtgga gagcggagga gggctgatcc agccgggggg gtccctgaga	120
ctctcctgtg cagcctctgg gttcaccgtc agaaacaact acatgagctg ggtgcgccag	180
gccccaggga agggactgga gtgggtctca gttatttata gcggtgggag tataacctac	240
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cagctatat	300
cttcaaatac acagcctgag agccgaggac acggccgtat attactgtgc gagagccgtc	360
ccacatgccc caagtgcctt tgacatctgg ggccagggga caatgggtcac cgtctcttca	420
gagcccaaata cttgtgacaa aactcacaca tgcccaccgt gccagcacc tgaactcctg	480
gggggaccgt cagtcttctt cttccccca aaaccaagg acaccctcat gatctcccgg	540
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	600
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	780
atctccaaag ccaaagggca gccccgagaa ccacaggtgt acaccctgcc cccatcccgg	840
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	900
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960

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cccgtagctgg actccgacgg ctccttcttc ctctacagca agctcaccgt ggacaagagc      1020
aggtgggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac      1080
tacacgcaga agagcctctc cctgtctccg ggtaaa                                1116

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<210> 74
<211> 372
<212> PRT
<213> Homo Sapiens

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```

<400> 74

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```

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1          5          10          15

```

```

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu
20          25          30

```

```

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35          40          45

```

```

Thr Val Arg Asn Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50          55          60

```

```

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Thr Tyr
65          70          75          80

```

```

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
85          90          95

```

```

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
100         105         110

```

```

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp
115         120         125

```

```

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130         135         140

```

```

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145         150         155         160

```

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys

370

<210> 75
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 75

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

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

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 76
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 76

Gly Phe Thr Val Arg Asn Asn Tyr Met Ser
1 5 10

<210> 77

<211> 16
<212> PRT
<213> Homo Sapiens

<400> 77

Val	Ile	Tyr	Ser	Gly	Gly	Ser	Ile	Thr	Tyr	Ala	Asp	Ser	Val	Lys	Gly
1				5				10						15	

<210> 78
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 78

Ala	Val	Pro	His	Ala	Pro	Ser	Ala	Phe	Asp	Ile
1				5				10		

<210> 79
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 79

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gctccaggga aggggctgga gtgggtctca gttatttata gcggtggtag cacatactac	240
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat	300
cttcaaatga gcagcctgag ggccgaggac acggccgtgt attactgtgc gagagccgtt	360
ccccactccc ccagtgcttt tgataggtgg ggccaggga ccctgggtcac cgtctcttca	420
gagcccaa at cttgtgacaa aactcacaca tgcccaccgt gccagcacc tgaactcctg	480
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aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	780
atctccaaag ccaaagggca gccccgagaa ccacaggtgt acaccctgcc cccatcccgg	840

gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc 900
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cccgtgctgg actccgacgg ctcttcttc ctctacagca agctcaccgt ggacaagagc 1020
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tacacgcaga agagcctctc cctgtctccg ggtaaa 1116

<210> 80
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 80

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Val Ser Ser Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
85 90 95

Asn Thr Leu Tyr Leu Gln Met Ser Ser Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ala Phe Asp
115 120 125

Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu

355

360

365

Ser Pro Gly Lys
370

<210> 81
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 81

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 82
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 82

Gly Phe Thr Val Ser Ser Asn Tyr Met Ser

1 5 10

<210> 83
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 83

Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 84
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 84

Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg
1 5 10

<210> 85
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 85

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ccccactccc ccagtgcctt tgataggtgg ggccaggga ccctgggtcac cgtctcttca 420
gagcccaaata cttgtgacaa aactcacaca tgcccaccgt gccagcacc tgaactcctg 480
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accctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc 600
aactggtacg tggacggcgt ggaggtgcat aatgccaaaga caaagccgcg ggaggagcag 660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 720

ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	780
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gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	900
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960
cccgtgctgg actccgacgg ctctttcttc ctctacagca agctcaccgt ggacaagagc	1020
aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1080
tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 86
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 86

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5					10					15	

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu
			20					25					30		

Ile	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe
		35					40					45			

Thr	Val	Ser	Ser	Asn	Tyr	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys
	50					55					60				

Gly	Leu	Glu	Trp	Val	Ser	Val	Ile	Tyr	Ser	Gly	Gly	Ser	Thr	Tyr	Tyr
65					70					75				80	

Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys
				85					90					95	

Asn	Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala
			100					105					110		

Val	Tyr	Tyr	Cys	Ala	Arg	Ala	Val	Pro	His	Ser	Pro	Ser	Ala	Phe	Asp
		115					120					125			

Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val

340

345

350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 87
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 87

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

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg Trp Gly Gln Gly
 100 105 110

Thr Leu Val Thr Val Ser Ser
 115

<210> 88
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 88

Gly Phe Thr Val Ser Ser Asn Tyr Met Ser
1 5 10

<210> 89

<211> 16

<212> PRT

<213> Homo Sapiens

<400> 89

Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 90

<211> 11

<212> PRT

<213> Homo Sapiens

<400> 90

Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg
1 5 10

<210> 91

<211> 1116

<212> DNA

<213> Homo Sapiens

<400> 91

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ctctcctgta cagcctctgg gtttaccgtc agtagaatct acatgagctg ggtccgccag	180
gctccaggga aggggctgga gtgggtctca gtgatttata gcggtggaag tatatatattac	240
gcagattccg tgaggggccg atttaccatc tccagagaca gttccacgaa cacggtgtat	300
cttcaaatga acagcctgag agccgaggac tcggccgtgt attactgtgc gagagccgtc	360
ccacatgccc ctagtaattt tgataaatgg ggccaaggga caagggtcac cgtctctttca	420
gagcccaaat cttgtgacaa aactcacaca tgcccaccgt gcccagcacc tgaactcctg	480
gggggaccgt cagtcttcct cttcccccca aaaccaagg acaccctcat gatctcccgg	540
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	600

aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
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atctccaaag ccaaaggga gccccgagaa ccacaggtgt acaccctgcc cccatcccgg	840
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gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960
cccgctgctgg actccgacgg ctccttcttc ctctacagca agctcaccgt ggacaagagc	1020
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tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 92
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 92

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5					10					15	

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Glu	Glu	Thr	Gly	Gly	Asp	Leu
			20					25					30		

Ile	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Thr	Ala	Ser	Gly	Phe
		35					40					45			

Thr	Val	Ser	Arg	Ile	Tyr	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys
	50					55					60				

Gly	Leu	Glu	Trp	Val	Ser	Val	Ile	Tyr	Ser	Gly	Gly	Ser	Ile	Tyr	Tyr
65					70					75				80	

Ala	Asp	Ser	Val	Arg	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Ser	Ser	Thr
				85					90					95	

Asn	Thr	Val	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Ser	Ala
			100					105					110		

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp
115 120 125

Lys Trp Gly Gln Gly Thr Arg Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr

325

330

335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 93
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 93

Glu Val Gln Leu Glu Glu Thr Gly Gly Asp Leu Ile Gln Pro Gly Gly
 1 5 10 15

Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe Thr Val Ser Arg Ile
 20 25 30

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp Lys Trp Gly Gln Gly
 100 105 110

Thr Arg Val Thr Val Ser Ser
 115

<210> 94
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 94

Gly	Phe	Thr	Val	Ser	Arg	Ile	Tyr	Met	Ser
1				5				10	

<210> 95
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 95

Val	Ile	Tyr	Ser	Gly	Gly	Ser	Ile	Tyr	Tyr	Ala	Asp	Ser	Val	Arg	Gly
1				5				10						15	

<210> 96
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 96

Ala	Val	Pro	His	Ala	Pro	Ser	Asn	Phe	Asp	Lys
1				5				10		

<210> 97
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 97

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ctctcctgtg cagtctctgg gttcacgctc agtaagaatt acatgagctg ggtccgccag	180
gttccaggga aggggctgga gtgggtcgca gttgtttata gcggtggtag caaaacctac	240
gcagactccg tgaagggccg attcatcctc tccagagaca attccgacaa cacactgtat	300
cttcaaatga acaacctgag agccgaggac acggccgtgt attactgtgc gagagccgtt	360
cctcattccc ccagttcttt tgatatctgg ggccaaggga caatggtcac cgtctcttca	420
gagcccaaat cttgtgacaa aactcacaca tgcccaccgt gccagcacc tgaactcctg	480

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aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag      660
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<210> 98
<211> 372
<212> PRT
<213> Homo Sapiens

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<400> 98
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Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1           5           10           15

```

```

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu
20           25           30

```

```

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35           40           45

```

```

Thr Val Ser Arg Ile Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50           55           60

```

```

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr
65           70           75           80

```

```

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Lys
85           90           95

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Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp
115 120 125

Lys Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro

305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 99
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 99

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Arg Ile
20 25 30

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp Lys Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

<210> 100
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 100

Gly Phe Thr Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 101
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 101

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 102
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 102

Ala Val Pro His Ala Pro Ser Asn Phe Asp Lys
1 5 10

<210> 103
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 103
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ctctcctgtg cagtctctgg gttcaccgtc agtaagaatt acatgagctg ggtccgccag 180
gttccaggga aggggctgga gtgggtcgca gttgtttata gcggtggtag caaacctac 240
gcagactccg tgaagggccg attcatcctc tccagagaca attccgacaa cacactgtat 300
cttcaaatga acaacctgag agccgaggac acggccgtgt attactgtgc gagagccgtt 360

cctcattccc ccagttcttt tgatatctgg ggccaaggga caatggtcac cgtctcttca	420
gagcccaaatt cttgtgacaa aactcacaca tgcccaccgt gcccagcacc tgaactcctg	480
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aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagcccccat cgagaaaacc	780
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gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	900
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960
cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc	1020
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tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 104
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 104

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5				10					15		

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Ala	Glu	Thr	Gly	Gly	Gly	Leu
			20				25					30			

Ile	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Val	Ser	Gly	Phe
		35					40					45			

Thr	Val	Ser	Lys	Asn	Tyr	Met	Ser	Trp	Val	Arg	Gln	Val	Pro	Gly	Lys
	50					55					60				

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

Ala Asp Ser Val Lys Gly Arg Phe Ile Leu Ser Arg Asp Asn Ser Asp
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val

290

295

300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 105
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 105

Glu Val Gln Leu Ala Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 106
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 106

Gly Phe Thr Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 107
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 107

Val Val Tyr Ser Gly Gly Ser Lys Thr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 108
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 108

Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile
1 5 10

<210> 109
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 109

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gccccagggga aggggctgga gtgggtcagc gttgtttata gcggtggtag caaaacctac 240

gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacactgtat 300
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 cctcattccc ccagttcttt tgatatctgg ggccaaggga caatggtcac cgtctcttca 420
 gagcccaaatt cttgtgacaa aactcacaca tgcccaccgt gcccagcacc tgaactcctg 480
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 aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag 660
 tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 720
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 gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct 960
 cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc 1020
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 tacacgcaga agagcctctc cctgtctccg ggtaaa 1116

<210> 110
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 110

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
 1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu
 20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
 35 40 45

Thr Val Ser Lys Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
 50 55 60

Gly Leu Glu Trp Val Ser Val Val Tyr Ser Gly Gly Ser Lys Thr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
260 265 270

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

275

280

285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 111
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 111

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

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 112
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 112

Gly Phe Thr Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 113
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 113

Val Val Tyr Ser Gly Gly Ser Lys Thr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 114
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 114

Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile
1 5 10

<210> 115
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 115

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ctctcctgta cagcctctgg gtttaacgtc agtagaatct acatgagctg ggtccgccag	180
gctccaggga aggggctgga gtgggtctca gtgatttata gcggtggaag tatatatattac	240
gcagattccg tgagggggccg atttaccatc tccagagaca gttccacgaa cacggtgttt	300
cttcaaatga acagcctgag agccgaggac tcggccgtgt attactgtgc gagagccgtc	360
ccaagtgccc ctagttcttt tgatatctgg ggccaaggga caatggtcac cgtctcttca	420
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aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagccccga ggagaaaacc	780
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cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc	1020
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tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 116
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 116

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5				10					15		

Gly	Ser	Thr	Gly	Ser	Glu	Val	Gln	Leu	Glu	Glu	Thr	Gly	Gly	Asp	Leu
			20				25					30			

Ile	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Thr	Ala	Ser	Gly	Phe
		35					40					45			

Asn Val Ser Arg Ile Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr
65 70 75 80

Ala Asp Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Thr
85 90 95

Asn Thr Val Phe Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
245 250 255

Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln

260

265

270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 117
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 117

Glu Val Gln Leu Glu Glu Thr Gly Gly Asp Leu Ile Gln Pro Gly Gly
 1 5 10 15

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

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

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

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

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

Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 118
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 118

Gly Phe Asn Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 119
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 119

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Arg Gly
1 5 10 15

<210> 120
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 120

Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile
1 5 10

<210> 121
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 121
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tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 720
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tacacgcaga agagcctctc cctgtctccg ggtaaa 1116

<210> 122
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 122

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
35 40 45

Thr Val Arg Asn Asn Tyr Met Ser Trp Ala Arg Gln Val Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Thr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Ile Ile Ser Arg Asp Asn Ser Asn
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Gly Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro

245

250

255

Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 123
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 123

Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
 1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Ala Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 124
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 124

Gly Phe Thr Val Arg Asn Asn Tyr Met Ser
1 5 10

<210> 125
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 125

Val Ile Tyr Ser Gly Gly Ser Ile Thr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 126
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 126

Ala Val Pro His Ala Pro Ser Ala Phe Asp Ile
1 5 10

<210> 127

<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 127
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gctccagggg aggggctgga gtgggtctca gttatttata gcggtggtag cacatactac 240
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aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag 660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat 720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagccccga ggagaaaacc 780
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cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc 1020
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tacacgcaga agagcctctc cctgtctccg ggtaaa 1116

<210> 128
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 128
Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Thr Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe
35 40 45

Thr Val Ser Ser Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
85 90 95

Asn Thr Leu Tyr Leu Gln Met Ser Asn Leu Thr Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ala Phe Asp
115 120 125

Arg Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ser
115

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<400> 130

Gly Phe Thr Val Ser Ser Asn Tyr Met Ser
1 5 10

<210> 131
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 131

Val Ile Tyr Ser Gly Gly Ser Thr Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 132
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<400> 132

Ala Val Pro His Ser Pro Ser Ala Phe Asp Arg

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<210> 133
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<400> 133
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 cccgtgctgg actccgacgg ctcttcttct ctctacagca agctcaccgt ggacaagagc 1020
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<210> 134
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 134

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
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Gly Ser Thr Gly Ser Glu Val Gln Leu Glu Glu Thr Gly Gly Asp Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Thr Ala Ser Gly Phe
35 40 45

Asn Val Ser Arg Ile Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr
65 70 75 80

Ala Asp Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Thr
85 90 95

Asn Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp
115 120 125

Lys Trp Gly Gln Gly Thr Arg Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr

210

215

220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 135
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 135

Glu Val Gln Leu Glu Glu Thr Gly Gly Asp Leu Ile Gln Pro Gly Gly
 1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ala Pro Ser Asn Phe Asp Lys Trp Gly Gln Gly
100 105 110

Thr Arg Val Thr Val Ser Ser
115

<210> 136
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 136

Gly Phe Asn Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 137
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 137

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Arg Gly
1 5 10 15

<210> 138
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 138

Ala Val Pro His Ala Pro Ser Asn Phe Asp Lys
1 5 10

<210> 139

<211> 1116

<212> DNA

<213> Homo Sapiens

<400> 139

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ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagccccga ggagaaaacc      780
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<211> 372

<212> PRT
<213> Homo Sapiens

<400> 140

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
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Gly Ser Thr Gly Ser Glu Val Gln Leu Ala Glu Thr Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
35 40 45

Asn Val Ser Lys Asn Tyr Met Ser Trp Val Arg Gln Val Pro Gly Lys
50 55 60

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

Ala Asp Ser Val Lys Gly Arg Phe Ile Leu Ser Arg Asp Asn Ser Asp
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu

195

200

205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 141
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 141

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 142
<211> 10
<212> PRT
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<400> 142

Gly Phe Asn Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 143
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 143

Val Val Tyr Ser Gly Gly Ser Lys Thr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 144
 <211> 11
 <212> PRT
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<400> 144

Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile
 1 5 10

<210> 145
 <211> 1116
 <212> DNA
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<400> 145

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<210> 146
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 146

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Ser Glu Val Gln Leu Ala Glu Thr Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
35 40 45

Thr Val Ser Lys Asn Tyr Met Ser Trp Val Arg Gln Val Pro Gly Lys
50 55 60

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

Ala Asp Ser Val Lys Gly Arg Phe Ile Leu Ser Arg Asp Asn Ser Asp
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Asn Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser

180

185

190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 147

<211> 119

<212> PRT

<213> Homo Sapiens

<400> 147

Glu Val Gln Leu Ala Glu Thr Gly Gly Gly Leu Ile Gln Pro Gly Gly
1 5 10 15

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 148

<211> 10

<212> PRT

<213> Homo Sapiens

<400> 148

Gly Phe Thr Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 149

<211> 16

<212> PRT

<213> Homo Sapiens

<400> 149

Val	Val	Tyr	Ser	Gly	Gly	Ser	Lys	Thr	Tyr	Ala	Asp	Ser	Val	Lys	Gly
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<210> 150
 <211> 11
 <212> PRT
 <213> Homo Sapiens

<400> 150

Ala	Val	Pro	His	Ser	Pro	Ser	Ser	Phe	Asp	Ile
1				5				10		

<210> 151
 <211> 1116
 <212> DNA
 <213> Homo Sapiens

<400> 151

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cctcattccc	ccagttcttt	tgatatctgg	ggccaaggga	caatggtcac	cgctctttca	420
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<210> 152
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 152

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
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Gly Ser Thr Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu
20 25 30

Ile Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Val Ser Gly Phe
35 40 45

Thr Val Ser Lys Asn Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys
50 55 60

Gly Leu Glu Trp Val Ser Val Val Tyr Ser Gly Gly Ser Lys Thr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp
115 120 125

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu

165

170

175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
 275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
 290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
 305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
 325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
 340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
 355 360 365

Ser Pro Gly Lys
 370

<210> 153
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 153

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 154
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 154

Gly Phe Thr Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 155
<211> 16
<212> PRT

<213> Homo Sapiens

<400> 155

Val	Val	Tyr	Ser	Gly	Gly	Ser	Lys	Thr	Tyr	Ala	Asp	Ser	Val	Lys	Gly
1				5					10					15	

<210> 156

<211> 11

<212> PRT

<213> Homo Sapiens

<400> 156

Ala	Val	Pro	His	Ser	Pro	Ser	Ser	Phe	Asp	Ile
1				5					10	

<210> 157

<211> 1116

<212> DNA

<213> Homo Sapiens

<400> 157

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ccaggaagg ggctggtgtg ggtctcacgt attaatagtg atgggagtaa cacaacctac	240
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acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagtcc	600
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aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac 1080
tacacgcaga agagcctctc cctgtctccg ggtaaa 1116

<210> 158
<211> 372
<212> PRT
<213> Homo Sapiens

<400> 158

Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1 5 10 15

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
20 25 30

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
35 40 45

Phe Ser Asn Tyr Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly
50 55 60

Leu Val Trp Val Ser Arg Ile Asn Ser Asp Gly Ser Asn Thr Thr Tyr
65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
100 105 110

Val Tyr Tyr Cys Ala Arg Trp Phe Gly Glu His Tyr Tyr Gly Met Asp
115 120 125

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Glu Pro Lys Ser
130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu

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

Ser Pro Gly Lys
370

<210> 159
<211> 120
<212> PRT
<213> Homo Sapiens

<400> 159

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 Asn Tyr
20 25 30

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 160
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 160

Gly Phe Thr Phe Ser Asn Tyr Trp Met His
1 5 10

<210> 161
<211> 17
<212> PRT
<213> Homo Sapiens

<400> 161

Arg	Ile	Asn	Ser	Asp	Gly	Ser	Asn	Thr	Thr	Tyr	Ala	Asp	Ser	Val	Lys
1			5					10					15		

Gly

<210> 162
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 162

Trp	Phe	Gly	Glu	His	Tyr	Tyr	Gly	Met	Asp	Val
1			5				10			

<210> 163
<211> 1113
<212> DNA
<213> Homo Sapiens

<400> 163

atggagaccg acaccctgct gctgtgggtg ctgctgctgt gggtgcccgg atccaccggc	60
gaggtgcagc tggtggagag cggaggaggc ttgatccagc cggggggggtc cctgagactc	120
tcctgtgccg cctctgggtt taccgtcagt agaatctaca tgagctgggt ccgccaggct	180
ccagggaaagg ggctggagtg ggtctcagtg atttatagcg gtggaagtat atattacgca	240
gattccgtga agggccgatt taccatctcc agagacagtt ccaagaacac ggtgtacctt	300
caaatgaaca gcctgagagc cgaggacacc gccgtgtatt actgtgagag agccgtccca	360
agtgccccta gttcttttga tatctggggc caagggacaa tggtcaccgt ctcttcagag	420
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	480
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc	540
cctgagggtca catgctgtgt ggtggacgtg agccacgaag accctgaggt caagttcaac	600
tggtacgtgg acggcgtgga ggtgcataat gccaaagacaa agccgcggga ggagcagtac	660

aacagcacgt accgggtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc	720
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	780
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	840
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	900
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	960
gtgctggact ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg	1020
tggcagcagg ggaacgtctt ctcattgctcc gtgatgcatg aggctctgca caaccactac	1080
acgcagaaga gcctctccct gtctccgggt aaa	1113

<210> 164
 <211> 371
 <212> PRT
 <213> Homo Sapiens

<400> 164

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5					10					15	

Gly	Ser	Thr	Gly	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Ile
			20					25					30		

Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr
		35					40					45			

Val	Ser	Arg	Ile	Tyr	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly
	50					55					60				

Leu	Glu	Trp	Val	Ser	Val	Ile	Tyr	Ser	Gly	Gly	Ser	Ile	Tyr	Tyr	Ala
65					70					75					80

Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Ser	Ser	Lys	Asn
				85					90					95	

Thr	Val	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val
			100					105					110		

Tyr	Tyr	Cys	Ala	Arg	Ala	Val	Pro	Ser	Ala	Pro	Ser	Ser	Phe	Asp	Ile
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

115

120

125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser Cys
 130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 145 150 155 160

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 165 170 175

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 195 200 205

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 210 215 220

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 245 250 255

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 260 265 270

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 290 295 300

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
355 360 365

Pro Gly Lys
370

<210> 165
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 165

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Arg Ile
20 25 30

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

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

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

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

Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 166
<211> 10

<212> PRT
<213> Homo Sapiens

<400> 166

Gly Phe Thr Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 167
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 167

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 168
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 168

Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile
1 5 10

<210> 169
<211> 1113
<212> DNA
<213> Homo Sapiens

<400> 169

atggagaccg acaccctgct gctgtgggtg ctgctgctgt gggtgcccgg atccaccggc	60
gaggtgcagc tgggtggagag cggaggaggc ttgatccagc ctgggggggtc cctgagactc	120
tcctgtgcag tctctggggtt caccgtcagt aagaattaca tgagctgggt ccgccaggcc	180
ccagggaagg ggctggagtg ggtcagcggt gtttatagcg gtggtagcaa aacctacgca	240
gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac actgtatctt	300
caaatgaaca gcctgagagc cgaggacacg gccgtgtatt actgtgagag agccgttcct	360
cattcccca gttcttttga tatctggggc caagggacaa tgggtaccgt ctcttcagag	420
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	480
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc	540

cctgaggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac	600
tggtacgtgg acggcgtgga ggtgcataat gccaaagaaa agccgcggga ggagcagtac	660
aacagcacgt accgggtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc	720
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc	780
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	840
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	900
atgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	960
gtgctggact ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg	1020
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1080
acgcagaaga gcctctccct gtctccgggt aaa	1113

<210> 170
 <211> 371
 <212> PRT
 <213> Homo Sapiens

<400> 170

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5					10					15	

Gly	Ser	Thr	Gly	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Ile
			20					25					30		

Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Val	Ser	Gly	Phe	Thr
		35					40					45			

Val	Ser	Lys	Asn	Tyr	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly
50						55					60				

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

Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn
				85					90					95	

Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

100

105

110

Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile
 115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser Cys
 130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 145 150 155 160

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 165 170 175

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 195 200 205

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 210 215 220

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 245 250 255

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 260 265 270

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 290 295 300

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
355 360 365

Pro Gly Lys
370

<210> 171
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 171

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

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 172
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 172

Gly	Phe	Thr	Val	Ser	Lys	Asn	Tyr	Met	Ser
1				5				10	

<210> 173
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 173

Val	Val	Tyr	Ser	Gly	Gly	Ser	Lys	Thr	Tyr	Ala	Asp	Ser	Val	Lys	Gly
1				5				10						15	

<210> 174
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 174

Ala	Val	Pro	His	Ser	Pro	Ser	Ser	Phe	Asp	Ile
1				5				10		

<210> 175
<211> 1113
<212> DNA
<213> Homo Sapiens

<400> 175

atggagaccg acaccctgct gctgtgggtg ctgctgctgt gggtgcccgg atccaccggc	60
gaggtgcagc tggtggagag cggaggaggc ttgatccagc cggggggggtc cctgagactc	120
tcctgtgccg cctctggggtt taccgtcagt agaatctaca tgagctgggt ccgccaggct	180
ccagggaagg ggctggagtg ggtctcagt atttatagcg gtggaagtat atattacgca	240
gattccgtga agggccgatt taccatctcc agagacagtt ccaagaacac ggtgtacctt	300
caaatgaaca gcctgagagc cgaggacacc gccgtgtatt actgtgagag agccgtccca	360
agtgccccta gttcttttga tatctggggc caagggacaa tggtcaccgt ctcttcagag	420

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cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg      480
ggaccgggacg tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccgacc      540
cctgagggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac      600
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac      660
aacagcacgt accgggtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc      720
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccgagga gaaaaccatc      780
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag      840
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac      900
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc      960
gtgctggact ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg     1020
tggcagcagg ggaacgtctt ctcattgctc gtgatgcatg aggtcttgca caaccactac     1080
acgcagaaga gcctctccct gtctccgggt aaa                                  1113

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<210> 176
 <211> 371
 <212> PRT
 <213> Homo Sapiens

<400> 176

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Met Glu Thr Asp Thr Leu Leu Leu Trp Val Leu Leu Leu Trp Val Pro
1           5           10          15

```

```

Gly Ser Thr Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Ile
          20          25          30

```

```

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
          35          40          45

```

```

Val Ser Arg Ile Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly
          50          55          60

```

```

Leu Glu Trp Val Ser Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala
65          70          75          80

```

```

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Ser Ser Lys Asn

```

85

90

95

Thr Val Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
 100 105 110

Tyr Tyr Cys Ala Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile
 115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser Cys
 130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
 145 150 155 160

Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 165 170 175

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 195 200 205

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 210 215 220

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Glu
 245 250 255

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 260 265 270

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 290 295 300

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
355 360 365

Pro Gly Lys
370

<210> 177
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 177

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Val Ser Arg Ile
20 25 30

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

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

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

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

Arg Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 178
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 178

Gly Phe Thr Val Ser Arg Ile Tyr Met Ser
1 5 10

<210> 179
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 179

Val Ile Tyr Ser Gly Gly Ser Ile Tyr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 180
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 180

Ala Val Pro Ser Ala Pro Ser Ser Phe Asp Ile
1 5 10

<210> 181
<211> 1113
<212> DNA
<213> Homo Sapiens

<400> 181
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tcctgtgcag tctctgggtt caccgtcagt aagaattaca tgagctgggt ccgccaggcc 180
ccagggaagg ggctggagtg ggtcagcgtt gtttatagcg gtggtagcaa aacctacgca 240
gactccgtga agggccgatt caccatctcc agagacaatt ccaagaacac actgtatctt 300

caaatgaaca gcctgagagc cgaggacacg gccgtgtatt actgtgagag agccgttcct	360
cattccccca gttcttttga tatctggggc caagggacaa tggtcaccgt ctcttcagag	420
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga actcctgggg	480
ggaccggacg tcttcctctt ccccccaaaa cccaaggaca ccctcatgat ctcccggacc	540
cctgaggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac	600
tgggtacgtgg acggcgtgga ggtgcataat gccaaagaaa agccgcggga ggagcagtac	660
aacagcacgt accgggtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc	720
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccgagga gaaaaccatc	780
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	840
gagatgacca agaaccaggt cagcctgacc tgcctggtca aaggcttcta tcccagcgac	900
atgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	960
gtgctggact ccgacggctc cttcttcctc tacagcaagc tcaccgtgga caagagcagg	1020
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggctctgca caaccactac	1080
acgcagaaga gcctctccct gtctccgggt aaa	1113

<210> 182
 <211> 371
 <212> PRT
 <213> Homo Sapiens

<400> 182

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5				10					15		

Gly	Ser	Thr	Gly	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Ile
			20				25						30		

Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Val	Ser	Gly	Phe	Thr
		35				40						45			

Val	Ser	Lys	Asn	Tyr	Met	Ser	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly
	50					55					60				

Leu Glu Trp Val Ser Val Val Tyr Ser Gly Gly Ser Lys Thr Tyr Ala

65

70

75

80

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
85 90 95

Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
100 105 110

Tyr Tyr Cys Ala Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile
115 120 125

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Glu Pro Lys Ser Cys
130 135 140

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
145 150 155 160

Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
165 170 175

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
180 185 190

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
195 200 205

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
210 215 220

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
225 230 235 240

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Glu
245 250 255

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
260 265 270

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
275 280 285

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
290 295 300

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
305 310 315 320

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
325 330 335

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
340 345 350

His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser
355 360 365

Pro Gly Lys
370

<210> 183
<211> 119
<212> PRT
<213> Homo Sapiens

<400> 183

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

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

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

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

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

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

Arg Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile Trp Gly Gln Gly
100 105 110

Thr Met Val Thr Val Ser Ser
115

<210> 184
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 184

Gly Phe Thr Val Ser Lys Asn Tyr Met Ser
1 5 10

<210> 185
<211> 16
<212> PRT
<213> Homo Sapiens

<400> 185

Val Val Tyr Ser Gly Gly Ser Lys Thr Tyr Ala Asp Ser Val Lys Gly
1 5 10 15

<210> 186
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 186

Ala Val Pro His Ser Pro Ser Ser Phe Asp Ile
1 5 10

<210> 187
<211> 1116
<212> DNA
<213> Homo Sapiens

<400> 187

atggagaccg acaccctgct gctgtgggtg ctgctgctgt gggtgcccg atccaccggc 60

gaggtgcagc tggtggagtc cgggggaggc ttagttcagc ctggggggtc cctgagactc 120

tcctgtgcag cctctggatt caccttcagt aactactgga tgcactgggt cgcceaagct 180

ccaggaagg ggctggtgtg ggtctcacgt attaatagt atgggagtaa cacaacctac	240
gcggactccg tgaagggccg attcaccatc tccagagaca acgccaagaa cacgctgtat	300
ctgcaaatga acagtctgag agccgaggac acggctgtgt attactgtgc aagatggttc	360
ggggagcact actacggaat ggacgtctgg ggccaaggga ccacggtcac cgtctcttca	420
gagcccaaat cttgtgaaa aactcacaca tgcccaccgt gccagcacc tgaactcctg	480
gggggaccgg acgtcttcct cttcccccca aaaccaagg acaccctcat gatctcccg	540
acccctgagg tcacatgcgt ggtggtggac gtgagccacg aagaccctga ggtcaagttc	600
aactggtacg tggacggcgt ggaggtgcat aatgccaaga caaagccgcg ggaggagcag	660
tacaacagca cgtaccgggt ggtcagcgtc ctcaccgtcc tgcaccagga ctggctgaat	720
ggcaaggagt acaagtgcaa ggtctccaac aaagccctcc cagccccga ggagaaaacc	780
atctccaaag ccaaaggga gccccgagaa ccacaggtgt acaccctgcc cccatcccg	840
gaggagatga ccaagaacca ggtcagcctg acctgcctgg tcaaaggctt ctatcccagc	900
gacatcgccg tggagtggga gagcaatggg cagccggaga acaactacaa gaccacgcct	960
cccgctgctgg actccgacgg ctccttcttc ctctacagca agctcaccgt ggacaagagc	1020
aggtggcagc aggggaacgt cttctcatgc tccgtgatgc atgaggctct gcacaaccac	1080
tacacgcaga agagcctctc cctgtctccg ggtaaa	1116

<210> 188
 <211> 372
 <212> PRT
 <213> Homo Sapiens

<400> 188

Met	Glu	Thr	Asp	Thr	Leu	Leu	Leu	Trp	Val	Leu	Leu	Leu	Trp	Val	Pro
1				5					10					15	

Gly	Ser	Thr	Gly	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Leu	Val
			20					25					30		

Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr
		35					40					45			

Phe Ser Asn Tyr Trp Met His Trp Val Arg Gln Ala Pro Gly Lys Gly

50

55

60

Leu Val Trp Val Ser Arg Ile Asn Ser Asp Gly Ser Asn Thr Thr Tyr
 65 70 75 80

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
 85 90 95

Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
 100 105 110

Val Tyr Tyr Cys Ala Arg Trp Phe Gly Glu His Tyr Tyr Gly Met Asp
 115 120 125

Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Glu Pro Lys Ser
 130 135 140

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
 145 150 155 160

Gly Gly Pro Asp Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
 165 170 175

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
 180 185 190

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
 195 200 205

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
 210 215 220

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
 225 230 235 240

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
 245 250 255

Glu Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
 260 265 270

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
275 280 285

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
290 295 300

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
305 310 315 320

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
325 330 335

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
340 345 350

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
355 360 365

Ser Pro Gly Lys
370

<210> 189
<211> 120
<212> PRT
<213> Homo Sapiens

<400> 189

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 Asn Tyr
20 25 30

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 190
<211> 10
<212> PRT
<213> Homo Sapiens

<400> 190

Gly Phe Thr Phe Ser Asn Tyr Trp Met His
1 5 10

<210> 191
<211> 17
<212> PRT
<213> Homo Sapiens

<400> 191

Arg Ile Asn Ser Asp Gly Ser Asn Thr Thr Tyr Ala Asp Ser Val Lys
1 5 10 15

Gly

<210> 192
<211> 11
<212> PRT
<213> Homo Sapiens

<400> 192

Trp Phe Gly Glu His Tyr Tyr Gly Met Asp Val
1 5 10

<210> 193
<211> 23
<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 193

gtgtccagtg tgaggtgcag ctg

23

<210> 194

<211> 23

<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 194

gtgtccagtg tcaggtgcag ctg

23

<210> 195

<211> 24

<212> DNA

<213> Artificial sequence

<220>

<223> Primer

<400> 195

ggcttacaac cacaatccct gggc

24

<210> 196

<211> 672

<212> DNA

<213> Homo Sapiens

<400> 196

atggcttgcc ttggatttca gcggcacaag gctcagctga acctggctac caggacctgg

60

ccctgcactc tcctgttttt tcttctcttc atccctgtct tctgcaaagc aatgcacgtg

120

gcccagcctg ctgtggtact ggccagcagc cgaggcatcg ccagctttgt gtgtgagtat

180

gcatctccag gcaaagccac tgaggtccgg gtgacagtgc ttcggcaggc tgacagccag

240

gtgactgaag tctgtgcggc aacctacatg atgggggaatg agttgacctt cctagatgat

300

tccatctgca cgggcacctc cagtggaaat caagtgaacc tcactatcca aggactgagg

360

gccatggaca cgggactcta catctgcaag gtggagctca tgtaccacc gccatactac

420

ctgggcatag gcaacggaac ccagatttat gtaattgatc cagaaccgtg cccagattct

480

gacttcctcc tctggatcct tgcagcagtt agttcggggt tgttttttta tagctttctc	540
ctcacagctg tttctttgag caaatgcta aagaaaagaa gccctcttac aacaggggtc	600
tatgtgaaaa tgccccaac agagccagaa tgtgaaaagc aatttcagcc ttattttatt	660
cccatcaatt ga	672

<210> 197
 <211> 223
 <212> PRT
 <213> Homo Sapiens

<400> 197

Met	Ala	Cys	Leu	Gly	Phe	Gln	Arg	His	Lys	Ala	Gln	Leu	Asn	Leu	Ala
1			5						10					15	

Thr	Arg	Thr	Trp	Pro	Cys	Thr	Leu	Leu	Phe	Phe	Leu	Leu	Phe	Ile	Pro
			20				25						30		

Val	Phe	Cys	Lys	Ala	Met	His	Val	Ala	Gln	Pro	Ala	Val	Val	Leu	Ala
		35					40					45			

Ser	Ser	Arg	Gly	Ile	Ala	Ser	Phe	Val	Cys	Glu	Tyr	Ala	Ser	Pro	Gly
	50					55					60				

Lys	Ala	Thr	Glu	Val	Arg	Val	Thr	Val	Leu	Arg	Gln	Ala	Asp	Ser	Gln
65					70					75					80

Val	Thr	Glu	Val	Cys	Ala	Ala	Thr	Tyr	Met	Met	Gly	Asn	Glu	Leu	Thr
				85					90					95	

Phe	Leu	Asp	Asp	Ser	Ile	Cys	Thr	Gly	Thr	Ser	Ser	Gly	Asn	Gln	Val
			100					105					110		

Asn	Leu	Thr	Ile	Gln	Gly	Leu	Arg	Ala	Met	Asp	Thr	Gly	Leu	Tyr	Ile
		115					120					125			

Cys	Lys	Val	Glu	Leu	Met	Tyr	Pro	Pro	Pro	Tyr	Tyr	Leu	Gly	Ile	Gly
	130					135					140				

Asn	Gly	Thr	Gln	Ile	Tyr	Val	Ile	Asp	Pro	Glu	Pro	Cys	Pro	Asp	Ser
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

$\langle 210 \rangle$	199
$\langle 211 \rangle$	448
$\langle 212 \rangle$	PRT
$\langle 213 \rangle$	Artificial sequence

<220>

<223> heavy chain of Ipilimumab analogue

<400> 199

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

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

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

Thr Phe Ile Ser Tyr Asp Gly Asn Asn Lys Tyr Tyr Ala Asp Ser Val
50 55 60

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

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

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

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

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
130 135 140

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
145 150 155 160

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
165 170 175

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
180 185 190

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
195 200 205

Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys Thr
210 215 220

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu 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 His Glu Asp Pro
260 265 270

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
275 280 285

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn 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 Ala Leu Pro Ala Pro Ile Glu Lys Thr
325 330 335

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
340 345 350

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
355 360 365

Leu 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 Tyr Ser Lys Leu Thr Val Asp Lys Ser
405 410 415

Arg Trp Gln Gln 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 Pro Gly Lys
435 440 445

<210> 200
<211> 215
<212> PRT
<213> Artificial sequence

<220>
<223> light chain of Ipilimumab analogue

<400> 200

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 Gly Ser Ser
20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
35 40 45

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

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

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Gly Ser Ser Pro
85 90 95

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
100 105 110

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
115 120 125

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
130 135 140

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
145 150 155 160

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
165 170 175

Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val
180 185 190

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
195 200 205

Ser Phe Asn Arg Gly Glu Cys
210 215