

SEQUENCE LISTING

<110> Devalaraja-Narashimha, Kishor

<120> ANTI-C5 ANTIBODY COMBINATIONS AND USES THEREOF

<130> 10405

<160> 109

<170> PatentIn version 3.5

<210> 1

<211> 1676

<212> PRT

<213> Homo sapiens

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Val Gly Ala Ser Glu Asn Ile Val Ile Gln Val Tyr Gly Tyr Thr Glu
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Ala Phe Asp Ala Thr Ile Ser Ile Lys Ser Tyr Pro Asp Lys Lys Phe
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Ser Tyr Ser Ser Gly His Val His Leu Ser Ser Glu Asn Lys Phe Gln
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Asn Ser Ala Ile Leu Thr Ile Gln Pro Lys Gln Leu Pro Gly Gly Gln
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Asn Pro Val Ser Tyr Val Tyr Leu Glu Val Val Ser Lys His Phe Ser
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Lys Ser Lys Arg Met Pro Ile Thr Tyr Asp Asn Gly Phe Leu Phe Ile
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His Thr Asp Lys Pro Val Tyr Thr Pro Asp Gln Ser Val Lys Val Arg
130 135 140

Val Tyr Ser Leu Asn Asp Asp Leu Lys Pro Ala Lys Arg Glu Thr Val
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Leu Thr Phe Ile Asp Pro Glu Gly Ser Glu Val Asp Met Val Glu Glu
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Ile Asp His Ile Gly Ile Ile Ser Phe Pro Asp Phe Lys Ile Pro Ser
 180 185 190

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

Lys Tyr Leu Tyr Ile Ala Val Thr Val Ile Glu Ser Thr Gly Gly Phe
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Ser Glu Glu Ala Glu Ile Pro Gly Ile Lys Tyr Val Leu Ser Pro Tyr
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Lys Leu Asn Leu Val Ala Thr Pro Leu Phe Leu Lys Pro Gly Ile Pro
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Tyr Pro Ile Lys Val Gln Val Lys Asp Ser Leu Asp Gln Leu Val Gly
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Gly Val Pro Val Thr Leu Asn Ala Gln Thr Ile Asp Val Asn Gln Glu
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Thr Ser Asp Leu Asp Pro Ser Lys Ser Val Thr Arg Val Asp Asp Gly
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Val Ala Ser Phe Val Leu Asn Leu Pro Ser Gly Val Thr Val Leu Glu
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Phe Asn Val Lys Thr Asp Ala Pro Asp Leu Pro Glu Glu Asn Gln Ala
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Arg Glu Gly Tyr Arg Ala Ile Ala Tyr Ser Ser Leu Ser Gln Ser Tyr
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Leu Tyr Ile Asp Trp Thr Asp Asn His Lys Ala Leu Leu Val Gly Glu
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His Leu Asn Ile Ile Val Thr Pro Lys Ser Pro Tyr Ile Asp Lys Ile
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Thr His Tyr Asn Tyr Leu Ile Leu Ser Lys Gly Lys Ile Ile His Phe
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Gly Thr Arg Glu Lys Phe Ser Asp Ala Ser Tyr Gln Ser Ile Asn Ile
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Ala Thr Gly Met Asp Ser Trp Val Ala Leu Ala Ala Val Asp Ser Ala
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Val Tyr Gly Val Gln Arg Gly Ala Lys Lys Pro Leu Glu Arg Val Phe
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Gln Phe Leu Glu Lys Ser Asp Leu Gly Cys Gly Ala Gly Gly Gly Leu
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Gly Pro Arg Cys Ile Lys Ala Phe Thr Glu Cys Cys Val Val Ala Ser
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Gln Leu Arg Ala Asn Ile Ser His Lys Asp Met Gln Leu Gly Arg Leu
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His Met Lys Thr Leu Leu Pro Val Ser Lys Pro Glu Ile Arg Ser Tyr
755 760 765

Phe Pro Glu Ser Trp Leu Trp Glu Val His Leu Val Pro Arg Arg Lys
770 775 780

Gln Leu Gln Phe Ala Leu Pro Asp Ser Leu Thr Thr Trp Glu Ile Gln
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Gly Val Gly Ile Ser Asn Thr Gly Ile Cys Val Ala Asp Thr Val Lys
Page 4

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Glu Thr Thr Ala Tyr Ala Leu Leu Thr Ser Leu Asn Leu Lys Asp
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His Asn Tyr Lys Met Thr Asp Lys Asn Phe Leu Gly Arg Pro Val
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Glu Val Leu Leu Asn Asp Asp Leu Ile Val Ser Thr Gly Phe Gly
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Ser Gly Leu Ala Thr Val His Val Thr Thr Val Val His Lys Thr
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Leu Asp Ser Leu Thr Trp Ile Glu Tyr Trp Pro Arg Asp Thr Thr

1640

1645

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 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asp His
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 Tyr Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Ile
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 Gly Arg Ile Arg Asn Lys Ala Asn Ala Tyr Asn Thr Glu Tyr Ala Ala
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 Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Gln Asn Leu
 65 70 75 80
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 Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Asp Asp Thr Ala Val Tyr
 85 90 95
 tat tgt gtt aga gtc tgg aac tac gcc tac ttc gct atg gac gtc tgg 336
 Tyr Cys Val Arg Val Trp Asn Tyr Ala Tyr Phe Ala Met Asp Val Trp
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Gly Arg Ile Arg Asn Lys Ala Asn Ala Tyr Asn Thr Glu Tyr Ala Ala
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Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Gln Asn Leu
 65 70 75 80

Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Asp Asp Thr Ala Val Tyr
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gac aga gtc acc atc act tgc cgg tca agt cag aac att gga atc ttt	96
Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Gln Asn Ile Gly Ile Phe	
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tta aac tgg tat caa caa aaa cca ggg gaa gcc cct aac ctc ctg atc	144
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Glu Ala Pro Asn Leu Leu Ile	
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tcc gct gca tcc agt tta cac agt ggg gtc cct tca agg ttc agt ggc	192
Ser Ala Ala Ser Ser Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly	
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agt ggg tct ggg aca gat ttc act ctc acc atc ggc agt ctg cag cct	240
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Gly Ser Leu Gln Pro	
65 70 75 80	

gaa gat ttt gcg act tac tac tgt caa cag acg tac aat acc ata ttc	288
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Thr Tyr Asn Thr Ile Phe	
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act ttc ggc cct ggg acc aaa gtg gat atc aaa	321
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35 40 45

Ser Ala Ala Ser Ser Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

aga gaa ggg aac gtg gat aca act atg ata ttt gac tac tgg ggc cag 336
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 35 40 45

Gly Tyr Ile Tyr Tyr Ser Gly Ser Ser Asn Tyr Asn Pro Ser Leu Lys
 50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
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Tyr	Ala	Ala	Ser	Ser	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ala	Gly	
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cgt	gga	tct	ggc	aca	gat	ttc	act	ctc	acc	atc	agc	agc	ctg	cag	cct	240
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gaa	gat	ttt	gca	act	tat	tac	tgt	cta	caa	gat	ttc	aat	tac	ccg	tgg	288
Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	Asp	Phe	Asn	Tyr	Pro	Trp	
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acg	ttc	ggc	caa	ggg	acc	aag	gtg	gaa	atc	aaa						321
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100 105

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<211> 18
<212> DNA
<213> Homo sapiens

<400> 28
cagggcatta gaaatgat

18

<210> 29
<211> 6
<212> PRT
<213> Homo sapiens

<400> 29

Gln Gly Ile Arg Asn Asp
1 5

<210> 30
<211> 9
<212> DNA
<213> Homo sapiens

<400> 30
gctgcatcc

9

<210> 31
<211> 3
<212> PRT
<213> Homo sapiens

<400> 31

Ala Ala Ser
1

<210> 32
<211> 27
<212> DNA

<213> Homo sapiens

<400> 32

ctacaagatt tcaattaccc gtggacg

27

<210> 33

<211> 9

<212> PRT

<213> Homo sapiens

<400> 33

Leu Gln Asp Phe Asn Tyr Pro Trp Thr

1

5

<210> 34

<211> 357

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(357)

<400> 34

cag gtg cag ctg gtg gag tct ggg gga ggc gtg gtc cag cct ggg agg
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15

48

tcc ctg aga ctc tcc tgt gca gcg tct gga ttc acc ttc agt ggt tat
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Gly Tyr
20 25 30

96

ggc atg cac tgg gtc cgc cag gct cca ggc aag ggg ctg gag tgg gtg
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

144

gca ctt ata tgg ctt gat gga agt aat gac tac tat gca gac tcc gtg
Ala Leu Ile Trp Leu Asp Gly Ser Asn Asp Tyr Tyr Ala Asp Ser Val
50 55 60

192

aag ggc cga ttc acc atc tcc aga gac aat tcc aag aac acg tta tat
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65 70 75 80

240

ctg caa atg aac aga ctg aga gcc gag gac acg gct gtg tat tac tgt
Leu Gln Met Asn Arg Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

288

gcg aga gat ggc ccg gtt gct gct ata ccc gac tac tgg ggc cag gga
Ala Arg Asp Gly Pro Val Ala Ala Ile Pro Asp Tyr Trp Gly Gln Gly
100 105 110

336

acc ctg gtc acc gtc tcc tca
 Thr Leu Val Thr Val Ser Ser
 115

357

<210> 35
 <211> 119
 <212> PRT
 <213> Homo sapiens
 <400> 35

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 Gly Tyr
 20 25 30

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

Ala Leu Ile Trp Leu Asp Gly Ser Asn Asp 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 Arg Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

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

Thr Leu Val Thr Val Ser Ser
 115

<210> 36
 <211> 24
 <212> DNA
 <213> Homo sapiens
 <400> 36

ggattcacct tcagtgggta tggc

24

<210> 37

<211> 8
<212> PRT
<213> Homo sapiens

<400> 37

Gly Phe Thr Phe Ser Gly Tyr Gly
1 5

<210> 38
<211> 24
<212> DNA
<213> Homo sapiens

<400> 38
atatggcttg atggaagtaa tgac

24

<210> 39
<211> 8
<212> PRT
<213> Homo sapiens

<400> 39

Ile Trp Leu Asp Gly Ser Asn Asp
1 5

<210> 40
<211> 36
<212> DNA
<213> Homo sapiens

<400> 40
gcgagagatg gcccggttgc tgctataccc gactac

36

<210> 41
<211> 12
<212> PRT
<213> Homo sapiens

<400> 41

Ala Arg Asp Gly Pro Val Ala Ala Ile Pro Asp Tyr
1 5 10

<210> 42
<211> 321
<212> DNA
<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(321)

<400> 42

gac atc cag atg acc cag tct cct tcc acc ctg tct gca tct gta gga	48
Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly	
1 5 10 15	

gac aga gtc acc atc act tgc cgg gcc agt cag agt att agt agg tgg	96
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp	
20 25 30	

ttg gcc tgg tat cag ctg aaa cca ggg aaa gcc cct aag ctc ctg atc	144
Leu Ala Trp Tyr Gln Leu Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile	
35 40 45	

tat aag gcg tct agt tta gaa agt ggg gtc cca tca agg ttc agc ggc	192
Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly	
50 55 60	

agt gga tct ggg aca gac ttc act ctc acc atc agc agc ctg caa cct	240
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro	
65 70 75 80	

gat gat ttt gca act tat tac tgc caa cag tat aat act tat tcg tac	288
Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser Tyr	
85 90 95	

act ttt ggc cag ggg acc aag ctg gag atc aaa	321
Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys	
100 105	

<210> 43

<211> 107

<212> PRT

<213> Homo sapiens

<400> 43

Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly	
1 5 10 15	

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp	
20 25 30	

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

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly	
---	--

50

55

60

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

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser Tyr
 85 90 95

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

<210> 44
 <211> 18
 <212> DNA
 <213> Homo sapiens

<400> 44
 cagagtatta gtaggtgg

18

<210> 45
 <211> 6
 <212> PRT
 <213> Homo sapiens

<400> 45

Gln Ser Ile Ser Arg Trp
 1 5

<210> 46
 <211> 9
 <212> DNA
 <213> Homo sapiens

<400> 46
 aaggcgtct

9

<210> 47
 <211> 3
 <212> PRT
 <213> Homo sapiens

<400> 47

Lys Ala Ser
 1

<210> 48
 <211> 27
 <212> DNA
 <213> Homo sapiens

<400> 48
 caacagtata atacttattc gtacact

27

<210> 49
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 49

Gln Gln Tyr Asn Thr Tyr Ser Tyr Thr
 1 5

<210> 50
 <211> 363
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(363)

<400> 50
 gag gtg cag ctg gtg gag tct ggg gga ggt gtg gta cgg cct ggg ggg 48
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Arg Pro Gly Gly
 1 5 10 15

tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttt gat gaa tat 96
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asp Glu Tyr
 20 25 30

ggc atg act tgg gtc cgc caa gtt cca ggg aag ggg ctg gag tgg gtc 144
 Gly Met Thr Trp Val Arg Gln Val Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45

tct ggt att act tgg aat ggt ggt ttc aca gat tat aca gac tct gtg 192
 Ser Gly Ile Thr Trp Asn Gly Gly Phe Thr Asp Tyr Thr Asp Ser Val
 50 55 60

aag ggc cga ttc acc agc tcc aga gac aac gcc aag aac tcc ctg tat 240
 Lys Gly Arg Phe Thr Ser Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80

ctg caa atg aac agt ctg aga gcc gag gac acg gcc ttg tat tac tgt 288
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Leu Tyr Tyr Cys
 85 90 95

gcg aga gat gga tat agc agc tcg tgg ggg gct tat gat ata tgg ggc 336
 Ala Arg Asp Gly Tyr Ser Ser Ser Trp Gly Ala Tyr Asp Ile Trp Gly
 100 105 110

caa ggg aca atg gtc acc gtc tct tca 363
 Gln Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 51
 <211> 121
 <212> PRT
 <213> Homo sapiens

<400> 51

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

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

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

Ser Gly Ile Thr Trp Asn Gly Gly Phe Thr Asp Tyr Thr Asp Ser Val
 50 55 60

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

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

Ala Arg Asp Gly Tyr Ser Ser Ser Trp Gly Ala Tyr Asp Ile Trp Gly
 100 105 110

Gln Gly Thr Met Val Thr Val Ser Ser
 115 120

<210> 52
 <211> 24
 <212> DNA
 <213> Homo sapiens

<400> 52

ggattcacct ttgatgaata tggc

24

<210> 53
<211> 8
<212> PRT
<213> Homo sapiens

<400> 53

Gly Phe Thr Phe Asp Glu Tyr Gly
1 5

<210> 54
<211> 24
<212> DNA
<213> Homo sapiens

<400> 54
attacttgga atggtggttt caca

24

<210> 55
<211> 8
<212> PRT
<213> Homo sapiens

<400> 55

Ile Thr Trp Asn Gly Gly Phe Thr
1 5

<210> 56
<211> 42
<212> DNA
<213> Homo sapiens

<400> 56
gcgagagatg gatatagcag ctcgtggggg gcttatgata ta

42

<210> 57
<211> 14
<212> PRT
<213> Homo sapiens

<400> 57

Ala Arg Asp Gly Tyr Ser Ser Ser Trp Gly Ala Tyr Asp Ile
1 5 10

<210> 58
<211> 321

<212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(321)

<400> 58
 gac atc cag atg acc cag tct cca tca tcc ctg tct gca tct gtg gga 48
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 gac aga gtc acc atc act tgc cgg gca agt cag agc att agc acc tat 96
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
 20 25 30
 tta aat tgg tat cag cag aaa cca ggg aaa gcc cct aag ctc ctg atc 144
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 tat gct gca tcc agt ttg caa agt ggg gtc cca tta agg ttc agt ggc 192
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Leu Arg Phe Ser Gly
 50 55 60
 agt gga tct ggg act gat ttc act ctc acc atc agc agt ctg caa cct 240
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 gaa gat ttt gca agt tat ttc tgt caa cag agt tac agt acc ccg tac 288
 Glu Asp Phe Ala Ser Tyr Phe Cys Gln Gln Ser Tyr Ser Thr Pro Tyr
 85 90 95
 act ttt ggc cag ggg acc aag ctg gag atc aaa 321
 Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
 100 105

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

<400> 59
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Thr Tyr
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Leu Arg Phe Ser Gly
50 55 60

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

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

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

<210> 60
<211> 18
<212> DNA
<213> Homo sapiens

<400> 60
cagagcatta gcacctat

18

<210> 61
<211> 6
<212> PRT
<213> Homo sapiens

<400> 61

Gln Ser Ile Ser Thr Tyr
1 5

<210> 62
<211> 9
<212> DNA
<213> Homo sapiens

<400> 62
gctgcatcc

9

<210> 63
<211> 3
<212> PRT
<213> Homo sapiens

<400> 63

Ala Ala Ser

1

<210> 64
<211> 27
<212> DNA
<213> Homo sapiens

<400> 64
caacagagtt acagtacccc gtacact 27

<210> 65
<211> 9
<212> PRT
<213> Homo sapiens

<400> 65
Gln Gln Ser Tyr Ser Thr Pro Tyr Thr
1 5

<210> 66
<211> 360
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(360)

<400> 66
gaa gtg cag ctg gtg gag tct ggg gga ggc gtg gta cag cct ggg ggg 48
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Gly
1 5 10 15

tcc ctg aga ctc tcc tgt gca gcc tct gga ttc acc ttt aat gat tat 96
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Asn Asp Tyr
20 25 30

gcc atg cac tgg gtc cgt caa gct cca ggg aag ggt ctg gag tgg gtc 144
Ala Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

tct ctt att agt gga gat ggt ggt aac aca tac tat gca gac tct gtg 192
Ser Leu Ile Ser Gly Asp Gly Gly Asn Thr Tyr Tyr Ala Asp Ser Val
50 55 60

aag ggc cga ctc acc atc tcc aga gac aac agc aaa aac tcc ctg tat 240
Lys Gly Arg Leu Thr Ile Ser Arg Asp Asn Ser Lys Asn Ser Leu Tyr
65 70 75 80

ctg caa atg aac agt ctg aga aca gag gac acc gcc tta tat tac tgt 288

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

gca aaa gat aag ggc tgg aac ttc ggt tac ttc gat ctc tgg ggc cgt 336
Ala Lys Asp Lys Gly Trp Asn Phe Gly Tyr Phe Asp Leu Trp Gly Arg
100 105 110

ggc acc ctg gtc act gtc tcc tca 360
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 67
<211> 120
<212> PRT
<213> Homo sapiens

<400> 67

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

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

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

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

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

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

Ala Lys Asp Lys Gly Trp Asn Phe Gly Tyr Phe Asp Leu Trp Gly Arg
100 105 110

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 68
<211> 24
<212> DNA
<213> Homo sapiens

<400> 68
ggattcacct ttaatgatta tgcc 24

<210> 69
<211> 8
<212> PRT
<213> Homo sapiens

<400> 69
Gly Phe Thr Phe Asn Asp Tyr Ala
1 5

<210> 70
<211> 24
<212> DNA
<213> Homo sapiens

<400> 70
attagtggag atggtggtaa caca 24

<210> 71
<211> 8
<212> PRT
<213> Homo sapiens

<400> 71
Ile Ser Gly Asp Gly Gly Asn Thr
1 5

<210> 72
<211> 39
<212> DNA
<213> Homo sapiens

<400> 72
gcaaaagata agggctggaa cttcggttac ttcgatctc 39

<210> 73
<211> 13
<212> PRT
<213> Homo sapiens

<400> 73
Ala Lys Asp Lys Gly Trp Asn Phe Gly Tyr Phe Asp Leu
1 5 10

<210> 74
 <211> 327
 <212> DNA
 <213> Homo sapiens

<220>
 <221> CDS
 <222> (1)..(327)

<400> 74
 gac atc cag atg acc cag tct cca tcc tcc ctg tct aca tct gtg gga 48
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Thr Ser Val Gly
 1 5 10 15
 gac aga gtc acc atc act tgc cgg gca agt cag aac att gac acc tat 96
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Asp Thr Tyr
 20 25 30
 tta aat tgg tat cag cag aaa cca ggg aaa gcc cct aaa ctc ctg atc 144
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 tat gat gca tcc agt tta caa agt ggg gtc cca tca cgg ttc agt ggc 192
 Tyr Asp Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 agc gga tct ggg aca gat ttc act ctc acc atc acc agt ctg caa cct 240
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Thr Ser Leu Gln Pro
 65 70 75 80
 gaa gat ttt gcc act tac tac tgt caa cag aat gac aat att ctt cac 288
 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Asn Asp Asn Ile Leu His
 85 90 95
 cct ctc act ttc ggc gga ggg acc aag gtg gag atc aaa 327
 Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105

<210> 75
 <211> 109
 <212> PRT
 <213> Homo sapiens

<400> 75
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Thr Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Asn Ile Asp Thr Tyr
 20 25 30

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

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

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

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Asn Asp Asn Ile Leu His
 85 90 95

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

<210> 76
 <211> 18
 <212> DNA
 <213> Homo sapiens

<400> 76
 cagaacattg acacctat

18

<210> 77
 <211> 6
 <212> PRT
 <213> Homo sapiens

<400> 77

Gln Asn Ile Asp Thr Tyr
 1 5

<210> 78
 <211> 9
 <212> DNA
 <213> Homo sapiens

<400> 78
 gatgcatcc

9

<210> 79
 <211> 3
 <212> PRT
 <213> Homo sapiens

<400> 79

Asp Ala Ser
1

<210> 80

<211> 33

<212> DNA

<213> Homo sapiens

<400> 80

caacagaatg acaatattct tcaccctctc act

33

<210> 81

<211> 11

<212> PRT

<213> Homo sapiens

<400> 81

Gln Gln Asn Asp Asn Ile Leu His Pro Leu Thr
1 5 10

<210> 82

<211> 447

<212> PRT

<213> Homo sapiens

<400> 82

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Asp Ser Val Ser Ser Ser
20 25 30

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

Gly Tyr Ile Tyr Tyr Ser Gly Ser Ser Asn Tyr Asn Pro Ser Leu Lys
50 55 60

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

Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr Cys Ala
85 90 95

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

Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
115 120 125

Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala
130 135 140

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

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
165 170 175

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
180 185 190

Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys
195 200 205

Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro
210 215 220

Pro Cys Pro Pro Cys Pro Ala Pro Glu Phe Leu Gly Gly Pro Ser Val
225 230 235 240

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
245 250 255

Pro Glu Val Thr Cys Val Val Val Asp Val Ser Gln Glu Asp Pro Glu
260 265 270

Val Gln Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
275 280 285

Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser Thr Tyr Arg Val Val Ser
290 295 300

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys

305		310		315		320									
Cys	Lys	Val	Ser	Asn	Lys	Gly	Leu	Pro	Ser	Ser	Ile	Glu	Lys	Thr	Ile
				325					330					335	
Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr	Leu	Pro
			340					345					350		
Pro	Ser	Gln	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Thr	Cys	Leu
		355					360					365			
Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu	Ser	Asn
	370					375					380				
Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu	Asp	Ser
385					390					395				400	
Asp	Gly	Ser	Phe	Phe	Leu	Tyr	Ser	Arg	Leu	Thr	Val	Asp	Lys	Ser	Arg
			405						410					415	
Trp	Gln	Glu	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Leu	His	Glu	Ala	Leu
			420					425					430		
His	Ser	His	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Leu	Gly	Lys	
		435					440					445			

<210> 83
 <211> 214
 <212> PRT
 <213> Homo sapiens

<400> 83

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

50

55

60

Arg Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

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

Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 84

<211> 224

<212> PRT

<213> Homo sapiens

<400> 84

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 Gly Tyr

20

25

30

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

Ala Leu Ile Trp Leu Asp Gly Ser Asn Asp 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 Arg Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

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

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

Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu
 130 135 140

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

Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
 165 170 175

Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
 180 185 190

Ser Ser Leu Gly Thr Lys Thr Tyr Thr Cys Asn Val Asp His Lys Pro
 195 200 205

Ser Asn Thr Lys Val Asp Lys Arg Val Glu Ser Lys Tyr Gly Pro Pro
 210 215 220

<210> 85

<211> 214

<212> PRT

<213> Homo sapiens

<400> 85

Asp Ile Gln Met Thr Gln Ser Pro Ser Thr Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Arg Trp
20 25 30

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

Tyr Lys Ala Ser Ser Leu Glu Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

Asp Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Tyr Asn Thr Tyr Ser Tyr
85 90 95

Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130 135 140

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
145 150 155 160

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

<210> 86
<211> 369
<212> DNA
<213> Homo sapiens

<220>
<221> CDS
<222> (1)..(369)

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<400> 86
gag gtg cag ctg gtg gag tct ggg gga ggc ttg gtc caa ccg ggg ggg      48
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1                               5                               10                               15

tcc ctg aga ctc tcc tgt gca gcc tct gga ttc cac tct aat aga tat      96
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe His Ser Asn Arg Tyr
                20                               25                               30

tgg atg gac tgg gtc cgc cag gct cca ggg aag ggg ctg gag tgg gtg      144
Trp Met Asp Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
                35                               40                               45

gcc aac ata aag caa gat gga agt gag gaa aac tat gtg gac tct gtg      192
Ala Asn Ile Lys Gln Asp Gly Ser Glu Glu Asn Tyr Val Asp Ser Val
                50                               55                               60

aag ggc cga ttc acc atc tcc aga gac aac gcc aag aac tca ctt tat      240
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65                               70                               75                               80

ctg caa atg aac agc ctg aga gcc gag gac acg gct gtg tat tac tgt      288
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                85                               90                               95

gcg aga gat cga agc acc tcg tgg gtc cct tac tgg ttc ttc gat ctc      336
Ala Arg Asp Arg Ser Thr Ser Trp Val Pro Tyr Trp Phe Phe Asp Leu
                100                               105                               110

tgg ggc cgt ggc acc ctg gtc act gtc tcc tca      369
Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
                115                               120

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<210> 87
<211> 123
<212> PRT
<213> Homo sapiens

<400> 87

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 His Ser Asn Arg Tyr
20 25 30

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

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

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

Trp Gly Arg Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 88
<211> 24
<212> DNA
<213> Homo sapiens

<400> 88
ggattccact ctaatagata ttgg

24

<210> 89
<211> 8
<212> PRT
<213> Homo sapiens

<400> 89

Gly Phe His Ser Asn Arg Tyr Trp
1 5

<210> 90
<211> 24
<212> DNA

<213> Homo sapiens

<400> 90

ataaagcaag atggaagtga ggaa

24

<210> 91

<211> 8

<212> PRT

<213> Homo sapiens

<400> 91

Ile Lys Gln Asp Gly Ser Glu Glu

1

5

<210> 92

<211> 48

<212> DNA

<213> Homo sapiens

<400> 92

gcgagagatc gaagcacctc gtgggtccct tactggttct tcgatctc

48

<210> 93

<211> 16

<212> PRT

<213> Homo sapiens

<400> 93

Ala Arg Asp Arg Ser Thr Ser Trp Val Pro Tyr Trp Phe Phe Asp Leu

1

5

10

15

<210> 94

<211> 324

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(324)

<400> 94

gac atc cag atg acc cag tct cca tcc tcc ctg tct gca tct gta gga

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly

1

5

10

15

48

gac aga gtc acc atc act tgc cgg gca agt cag agc att agc agc tat

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr

20

25

30

96

tta aat tgg tat cag cag aaa cca ggg aaa gcc cct aag ctc ctg atc	144
Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile	
35 40 45	

tat gct gca tcc agt ttg caa agt ggg gtc ccg tca agg ttc agt ggc	192
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly	
50 55 60	

agt gga tct ggg aca gat ttc act ctc acc atc agc agt ctg caa cct	240
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro	
65 70 75 80	

gaa gat ttt gca act tac tac tgt caa cag agt tac agt acc cct ccg	288
Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro	
85 90 95	

atc acc ttc ggc caa ggg aca cga ctg gag att aaa	324
Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys	
100 105	

<210> 95
 <211> 108
 <212> PRT
 <213> Homo sapiens

<400> 95

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 96
<211> 18
<212> DNA
<213> Homo sapiens

<400> 96
cagagcatta gcagctat 18

<210> 97
<211> 6
<212> PRT
<213> Homo sapiens

<400> 97

Gln Ser Ile Ser Ser Tyr
1 5

<210> 98
<211> 9
<212> DNA
<213> Homo sapiens

<400> 98
gctgcatcc 9

<210> 99
<211> 3
<212> PRT
<213> Homo sapiens

<400> 99

Ala Ala Ser
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<210> 100
<211> 30
<212> DNA
<213> Homo sapiens

<400> 100
caacagagtt acagtacccc tccgatcacc 30

<210> 101
<211> 10
<212> PRT
<213> Homo sapiens

<400> 101

Gln Gln Ser Tyr Ser Thr Pro Pro Ile Thr
1 5 10

<210> 102

<211> 360

<212> DNA

<213> Homo sapiens

<220>

<221> CDS

<222> (1)..(360)

<400> 102

gaa gtg cag ctg gtg gag tct ggg gga ggc gtg gta cag cgg ggg gag 48
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Arg Gly Glu
1 5 10 15

tcc ctg aga ctc tcc tgt tca gcc tct gac ttc atc ttt aaa gat tat 96
Ser Leu Arg Leu Ser Cys Ser Ala Ser Asp Phe Ile Phe Lys Asp Tyr
20 25 30

gcc atg tac tgg gtc cgt caa att cca ggg aag ggt cta gag tgg atc 144
Ala Met Tyr Trp Val Arg Gln Ile Pro Gly Lys Gly Leu Glu Trp Ile
35 40 45

tct ctt att agt ggt gat ggt gac act aca tgg tat gga gac tct gtg 192
Ser Leu Ile Ser Gly Asp Gly Asp Thr Thr Trp Tyr Gly Asp Ser Val
50 55 60

aag ggc cga ttc acc atc tcc aga gac aac aac gaa aac tcc ctc ttt 240
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Asn Glu Asn Ser Leu Phe
65 70 75 80

ctg caa atg aac gat ctg aga act gag gac acc gcc atg tac tac tgt 288
Leu Gln Met Asn Asp Leu Arg Thr Glu Asp Thr Ala Met Tyr Tyr Cys
85 90 95

gca aga gat atg ggg tgg aac ttc ttt cag ttg caa tac tgg ggc cag 336
Ala Arg Asp Met Gly Trp Asn Phe Phe Gln Leu Gln Tyr Trp Gly Gln
100 105 110

gga acc ctg gtc acc gtc tcc tca 360
Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 103

<211> 120

<212> PRT

<213> Homo sapiens

<400> 103

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Arg Gly Glu
1 5 10 15

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

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

Ser Leu Ile Ser Gly Asp Gly Asp Thr Thr Trp Tyr Gly Asp Ser Val
50 55 60

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 104

<211> 24

<212> DNA

<213> Homo sapiens

<400> 104

gattcatct ttaaagatta tgcc

24

<210> 105

<211> 8

<212> PRT

<213> Homo sapiens

<400> 105

Asp Phe Ile Phe Lys Asp Tyr Ala
1 5

<210> 106
<211> 24
<212> DNA
<213> Homo sapiens

<400> 106
attagtgggtg atggtgacac taca

24

<210> 107
<211> 8
<212> PRT
<213> Homo sapiens

<400> 107

Ile Ser Gly Asp Gly Asp Thr Thr
1 5

<210> 108
<211> 39
<212> DNA
<213> Homo sapiens

<400> 108
gcaagagata tgggggtggaa cttcttttcag ttgcaatac

39

<210> 109
<211> 13
<212> PRT
<213> Homo sapiens

<400> 109

Ala Arg Asp Met Gly Trp Asn Phe Phe Gln Leu Gln Tyr
1 5 10