

SEQUENCE LISTING

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<120> ANTIBODIES SPECIFIC FOR CD3 AND USES THEREOF

<130> PC72375

<160> 100

<170> PatentIn version 3.5

<210> 1

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

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

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

Ala	Pro	Lys	Leu	Leu	Ile	Tyr	Trp	Ala	Ser	Thr	Arg	Glu	Ser	Gly	Val
	50					55					60				

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

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<400> 2

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

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

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

Ala Phe Ile Arg Asn Arg Ala Arg Gly Tyr Thr Ser Asp His Asn Pro
50 55 60

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

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

Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr Val Leu Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 3
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<213> Artificial Sequence

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<223> Synthetic peptide sequence

<400> 3

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 4

<211> 121

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<213> Artificial Sequence

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<223> Synthetic peptide sequence

<400> 4

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

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

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

Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr Thr Ser Asp His Asn Pro
50 55 60

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

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

Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr Val Leu Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 5
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<400> 5

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

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

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

Ala Phe Ile Arg Asn Arg Ala Gln Gly Tyr Thr Ser Asp His Asn Pro
50 55 60

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

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

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

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

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

Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr Thr Ser Asp His Gln Pro
50 55 60

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

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

Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr Val Leu Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 8
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
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<400> 8

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asp Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 9

<211> 112

<212> PRT

<213> Artificial Sequence

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<400> 9

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 Thr Ser Asp Gln Ser Leu Phe Asn Val
20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asp Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 10

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<212> PRT

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<400> 10

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

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

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

Ala Phe Ile Arg Asn Gln Asp Arg Gly Tyr Thr Ser Asp His Gln Pro
50 55 60

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

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

Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr Val Leu Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

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<400> 11

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Tyr Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 12
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<213> Artificial Sequence

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<400> 12

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

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

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

Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr Thr Ser Asp His Asn Pro
50 55 60

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

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

Tyr Cys Ala Arg Asp Arg His Ser Tyr Tyr Val Leu Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

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<400> 13

Asp Tyr Tyr Met Thr
1 5

<210> 14
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<400> 14

Gly Phe Thr Phe Ser Asp Tyr
1 5

<210> 15
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<400> 15

Gly Phe Thr Phe Ser Asp Tyr Tyr Met Thr
1 5 10

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<400> 16

Phe Ile Arg Asn Arg Ala Arg Gly Tyr Thr Ser Asp His Asn Pro Ser
1 5 10 15

Val Lys Gly

<210> 17
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<213> Artificial Sequence

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<400> 17

Arg Asn Arg Ala Arg Gly Tyr Thr
1 5

<210> 18
<211> 10
<212> PRT
<213> Artificial Sequence

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<400> 18

Asp Arg Pro Ser Tyr Tyr Val Leu Asp Tyr
1 5 10

<210> 19
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<212> PRT
<213> Artificial Sequence

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<400> 19

Phe Ile Arg Asn Gln Ala Arg Gly Tyr Thr Ser Asp His Asn Pro Ser
1 5 10 15

Val Lys Gly

<210> 20
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 20

Arg Asn Gln Ala Arg Gly Tyr Thr
1 5

<210> 21
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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<400> 21

Phe Ile Arg Asn Arg Ala Gln Gly Tyr Thr Ser Asp His Asn Pro Ser
1 5 10 15

Val Lys Gly

<210> 22
<211> 8
<212> PRT
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<220>
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<400> 22

Arg Asn Arg Ala Gln Gly Tyr Thr
1 5

<210> 23
<211> 19
<212> PRT
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<220>
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<400> 23

Phe Ile Arg Asn Gln Ala Arg Gly Tyr Thr Ser Asp His Gln Pro Ser
1 5 10 15

Val Lys Gly

<210> 24
<211> 19
<212> PRT
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<220>
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<400> 24

Phe	Ile	Arg	Asn	Gln	Asp	Arg	Gly	Tyr	Thr	Ser	Asp	His	Gln	Pro	Ser
1			5					10						15	

Val Lys Gly

<210> 25
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<400> 25

Asp	Arg	His	Ser	Tyr	Tyr	Val	Leu	Asp	Tyr
1			5					10	

<210> 26
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<400> 26

Thr	Ser	Ser	Gln	Ser	Leu	Phe	Asn	Val	Arg	Ser	Arg	Lys	Asn	Tyr	Leu
1			5					10						15	

Ala

<210> 27
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<220>
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<400> 27

Trp Ala Ser Thr Arg Glu Ser
1 5

<210> 28
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 28

Lys Gln Ser Tyr Asp Leu Phe Thr
1 5

<210> 29
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 29

Thr Ser Ser Gln Ser Leu Phe Asn Val Arg Ser Gln Lys Asn Tyr Leu
1 5 10 15

Ala

<210> 30
<211> 17

<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 30

Thr	Ser	Ser	Gln	Ser	Leu	Phe	Asn	Val	Arg	Ser	Gly	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 31
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 31

Trp	Ala	Ser	Asp	Arg	Glu	Ser
1				5		

<210> 32
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 32

Thr	Ser	Asp	Gln	Ser	Leu	Phe	Asn	Val	Arg	Ser	Gly	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 33
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<400> 33

Lys Gln Ser Tyr Tyr Leu Phe Thr
1 5

<210> 34

<211> 112

<212> PRT

<213> Artificial Sequence

<220>

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<400> 34

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 35

<211> 121

<212> PRT
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<400> 35

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

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

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

Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr Thr Ser Asp His Asn Pro
50 55 60

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

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

Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr Val Leu Asp Tyr Trp Gly
100 105 110

Gln Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 36
<211> 461
<212> PRT
<213> Artificial Sequence

<220>
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<400> 36

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

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr
 210 215 220

Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
 225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala Pro Ser Val Phe
 245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
 305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
 355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val
 370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
 405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

<210> 37

<211> 464

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 37

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

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

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

Pro Pro Lys Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Lys Gln
85 90 95

Ser Tyr Asp Leu Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

Gly Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly
115 120 125

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
130 135 140

Ser Gly Tyr Thr Phe Thr Ser Tyr Trp Met His Trp Val Arg Gln Ala
145 150 155 160

Pro Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Lys Pro Ser Asn Gly
165 170 175

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

Asp Lys Ala Lys Asn Ser Ala Tyr Leu Gln Met Asn Ser Leu Arg Ala
195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Arg Thr Ile Thr Thr Thr Glu
210 215 220

Gly Tyr Trp Phe Phe Asp Val Trp Gly Gln Gly Thr Leu Val Thr Val
225 230 235 240

Ser Ser Gly Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala Pro
245 250 255

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
275 280 285

Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
305 310 315 320

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
340 345 350

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
355 360 365

Leu Pro Pro Cys Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser
370 375 380

Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp Lys
420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
435 440 445

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

<210> 38

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<400> 38

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

Gly Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly
115 120 125

Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
130 135 140

Ser Gly Tyr Thr Phe Thr Ser Tyr Trp Met His Trp Val Arg Gln Ala
145 150 155 160

Pro Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Lys Pro Ser Asn Gly
165 170 175

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

Asp Lys Ala Lys Asn Ser Ala Tyr Leu Gln Met Asn Ser Leu Arg Ala
195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Thr Arg Thr Ile Thr Thr Thr Glu
210 215 220

Gly Tyr Trp Phe Phe Asp Val Trp Gly Gln Gly Thr Leu Val Thr Val
225 230 235 240

Ser Ser Gly Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala Pro
245 250 255

Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
260 265 270

Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
275 280 285

Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
290 295 300

Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
305 310 315 320

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
325 330 335

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
340 345 350

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
355 360 365

Leu Pro Pro Cys Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser
370 375 380

Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
385 390 395 400

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
405 410 415

Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp Lys
420 425 430

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
435 440 445

Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

<210> 39
<211> 15
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<213> Artificial Sequence

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<223> Synthetic peptide sequence

<400> 39

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

<210> 40
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 40

Met Gln Ser Gly Thr His Trp Arg Val Leu Gly Leu Cys Leu Leu Ser
1 5 10 15

Val Gly Val Trp Gly Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr
20 25 30

Gln Thr Pro Tyr Lys Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr
35 40 45

Cys Pro Gln Tyr Pro Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys
50 55 60

Asn Ile Gly Gly Asp Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp

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

<210> 41
 <211> 107
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide sequence

<400> 41

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Asn
20 25 30

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

Tyr Asp Thr Phe Thr Arg Ala Thr Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

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

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

<210> 42

<211> 124

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 42

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

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

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

Ser Ala Ile Ser Gly Gly Gly Arg Ser Thr 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 Val Tyr Tyr Cys
85 90 95

Ala Arg Asp Leu Ser Pro Ser Asp Val Gly Trp Gly Tyr Gly Phe Asp
100 105 110

Ile Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 43
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 43

Ala Ala Ser Ser Leu Gln Ser
1 5

<210> 44
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 44

Val Gln Pro Gly Gly Ser Leu Arg Leu
1 5

<210> 45
<211> 9
<212> PRT
<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 45

Leu Arg Leu Ser Cys Ala Ala Ser Gly
1 5

<210> 46

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 46

Trp Val Arg Gln Ala Pro Gly Lys Gly
1 5

<210> 47

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 47

Val Arg Gln Ala Pro Gly Lys Gly Leu
1 5

<210> 48

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 48

Trp Val Ala Phe Ile Arg Asn Gln Ala
1 5

<210> 49

<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 49

Phe Ile Arg Asn Gln Ala Arg Gly Tyr
1 5

<210> 50
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 50

Tyr Thr Ser Asp His Asn Pro Ser Val
1 5

<210> 51
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 51

Val Lys Gly Arg Phe Thr Ile Ser Arg
1 5

<210> 52
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 52

Phe Thr Ile Ser Arg Asp Asn Ala Lys
1 5

<210> 53
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 53

Leu Tyr Leu Gln Met Asn Ser Leu Arg
1 5

<210> 54
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 54

Tyr Leu Gln Met Asn Ser Leu Arg Ala
1 5

<210> 55
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 55

Leu Gln Met Asn Ser Leu Arg Ala Glu
1 5

<210> 56
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 56

Ile Gln Met Thr Gln Ser Pro Ser Ser
1 5

<210> 57
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 57

Met Thr Gln Ser Pro Ser Ser Leu Ser
1 5

<210> 58
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 58

Ile Thr Cys Thr Ser Ser Gln Ser Leu
1 5

<210> 59
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 59

Val Arg Ser Gln Lys Asn Tyr Leu Ala
1 5

<210> 60
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic peptide sequence

 <400> 60

 Trp Tyr Gln Gln Lys Pro Gly Lys Ala
 1 5

<210> 61
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic peptide sequence

 <400> 61

 Leu Leu Ile Tyr Trp Ala Ser Thr Arg
 1 5

<210> 62
 <211> 9
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic peptide sequence

 <400> 62

 Phe Thr Leu Thr Ile Ser Ser Leu Gln
 1 5

<210> 63
 <211> 15
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Synthetic peptide sequence

 <400> 63

Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
 1 5 10 15

<210> 64
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide sequence

<400> 64

Cys Pro Pro Cys Pro
 1 5

<210> 65
 <211> 16
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide sequence

<400> 65

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
 1 5 10 15

<210> 66
 <211> 186
 <212> PRT
 <213> Homo sapiens

<400> 66

Gln Asp Gly Asn Glu Glu Met Gly Gly Ile Thr Gln Thr Pro Tyr Lys
 1 5 10 15

Val Ser Ile Ser Gly Thr Thr Val Ile Leu Thr Cys Pro Gln Tyr Pro
 20 25 30

Gly Ser Glu Ile Leu Trp Gln His Asn Asp Lys Asn Ile Gly Gly Asp
 35 40 45

Glu Asp Asp Lys Asn Ile Gly Ser Asp Glu Asp His Leu Ser Leu Lys
 50 55 60

Glu Phe Ser Glu Leu Glu Gln Ser Gly Tyr Tyr Val Cys Tyr Pro Arg
 65 70 75 80

Gly Ser Lys Pro Glu Asp Ala Asn Phe Tyr Leu Tyr Leu Arg Ala Arg
 85 90 95

Val Cys Glu Asn Cys Met Glu Met Asp Val Met Ser Val Ala Thr Ile
 100 105 110

Val Ile Val Asp Ile Cys Ile Thr Gly Gly Leu Leu Leu Leu Val Tyr
 115 120 125

Tyr Trp Ser Lys Asn Arg Lys Ala Lys Ala Lys Pro Val Thr Arg Gly
 130 135 140

Ala Gly Ala Gly Gly Arg Gln Arg Gly Gln Asn Lys Glu Arg Pro Pro
 145 150 155 160

Pro Val Pro Asn Pro Asp Tyr Glu Pro Ile Arg Lys Gly Gln Arg Asp
 165 170 175

Leu Tyr Ser Gly Leu Asn Gln Arg Arg Ile
 180 185

<210> 67
 <211> 1534
 <212> DNA
 <213> Homo sapiens

<400> 67
 tattgtcaga gtcctcttgt ttggccttct aggaaggctg tgggaccag ctttcttcaa 60
 ccagtccagg tggaggcctc tgccttgaac gtttccaagt gaggtaaaac ccgcaggccc 120
 agaggcctct ctacttcctg tgtgggggtc agaaaccctc cttccctccc agcctcaggt 180
 gcctgcttca gaaaatgaag tagtaagtct gctggcctcc gccatcttag taaagtaaca 240

gtcccatgaa acaaagatgc agtcgggcac tcactggaga gttctgggcc tctgcctctt	300
atcagttggc gtttgggggc aagatggtaa tgaagaaatg ggtgggtatta cacagacacc	360
atataaagtc tccatctctg gaaccacagt aatattgaca tgccctcagt atcctggatc	420
tgaaatacta tggcaacaca atgataaaaa cataggcggg gatgaggatg ataaaaacat	480
aggcagtgat gaggatcacc tgtcactgaa ggaattttca gaattggagc aaagtggtta	540
ttatgtctgc taccacagag gaagcaaacc agaagatgcg aacttttatc tctacctgag	600
ggcaagagtg tgtgagaact gcatggagat ggatgtgatg tcggtggcca caattgtcat	660
agtggacatc tgcactactg ggggcttgct gctgctgggt tactactgga gcaagaatag	720
aaaggccaag gccaaagcctg tgacacgagg agcgggtgct ggcggcaggc aaaggggaca	780
aaacaaggag aggccaccac ctgttcccaa cccagactat gagcccatcc ggaaaggcca	840
gcgggacctg tattctggcc tgaatcagag acgcatctga ccctctggag aacactgcct	900
cccgctggcc caggtctcct ctccagtccc cctgcgactc cctgtttcct gggctagtct	960
tggacccac gagagagaat cgttcctcag cctcatgggt aactcgcgcc ctccagcctg	1020
atcccccgct ccctcctccc tgccttctct gctggtagcc agtcctaaaa tattgctgct	1080
tcctcttcct ttgaagcatc atcagtagtc acaccctcac agctggcctg ccctcttgcc	1140
aggatattta tttgtgctat tcactccctt ccctttggat gtaacttctc cgttcagttc	1200
cctccttttc ttgcatgtaa gttgtcccc atcccaaagt attccatcta cttttctatc	1260
gccgtcccct tttgcagccc tctctgggga tggactgggt aaatgttgac agaggccctg	1320
ccccgttcac agatcctggc cctgagccag ccctgtgctc ctccctcccc caacactccc	1380
taccaacccc ctaatcccct actccctcca cccccctcc actgtaggcc actggatggt	1440
catttgcatc tccgtaaatg tgctctgctc ctcagctgag agagaaaaaa ataaactgta	1500
tttggctgca agaaaaaaaa aaaaaaaaaa aaaa	1534

<210> 68
 <211> 336
 <212> DNA
 <213> Artificial Sequence

<220>

<223> Synthetic nucleotide sequence

<400> 68

gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc	60
atcacctgca caagctcaca gtcactgttt aatgtccgca gccggaaaaa ctatcttgcg	120
tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtacacga	180
gaatccggcg tgccttcag attctccggc tctggctctg gcaccgattt caccctgacc	240
atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttacgacctt	300
ttcacttttg gcggcggaac aaaggtggag atcaag	336

<210> 69

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic nucleotide sequence

<400> 69

gaagtgcagc ttgttgaatc tggcggcggc ttggttcagc ccggtggatc actgcgactc	60
agttgcgag ctagcggctt caccttttct gattactaca tgacatgggt acgacaggcg	120
ccaggcaagg gtttggaatg ggtagcattc atacgcaata gggcacgcgg gtacacttca	180
gaccacaatc cctcagtaaa aggaagattt accatctcaa gagacaatgc caaaaattca	240
ctctacctgc aaatgaactc acttcgcgcc gaggataccg ccgtgtatta ctgtgccaga	300
gacagaccat cttattacgt gctggactat tggggacagg gcactacagt caccgtcagc	360
tct	363

<210> 70

<211> 336

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic nucleotide sequence

<400> 70

gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc	60
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atcacctgca caagctcaca gtcactgttt aatgtccgca gccagaaaaa ctatcttgcg	120
tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtacacga	180
gaatccggcg tgccttcag attctccggc tctggctctg gcaccgattt caccctgacc	240
atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttacgacctt	300
ttcacttttg gcggcggaac aaaggtggag atcaag	336

<210> 71
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic nucleotide sequence

<400> 71	
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agttgcgcag ctagcggcctt caccttttct gattactaca tgacatgggt acgacaggcg	120
ccaggcaagg gtttggaatg ggtagcattc atacgcaatc aggcacgcgg gtacacttca	180
gaccacaatc cctcagtaaa aggaagattt accatctcaa gagacaatgc caaaaattca	240
ctctacctgc aaatgaactc acttcgcgcc gaggataccg ccgtgtatta ctgtgccaga	300
gacagaccat cttattacgt gctggactat tggggacagg gcactacagt caccgtcagc	360
tct	363

<210> 72
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic nucleotide sequence

<400> 72	
gaagtgcagc ttgttgaatc tggcggcggg ttggttcagc ccggtggatc actgcgactc	60
agttgcgcag ctagcggcctt caccttttct gattactaca tgacatgggt acgacaggcg	120
ccaggcaagg gtttggaatg ggtagcattc atacgcaata gggcacaggg gtacacttca	180
gaccacaatc cctcagtaaa aggaagattt accatctcaa gagacaatgc caaaaattca	240

ctctacctgc aaatgaactc acttcgcgcc gaggataccg ccgtgtatta ctgtgccaga	300
gacagaccat cttattacgt gctggactat tggggacagg gcactacagt caccgtcagc	360
tct	363

<210> 73
 <211> 363
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic nucleotide sequence

<400> 73	
gaagtgcagc ttgttgaatc tggcggcggg ttggttcagc ccggtggatc actgcgactc	60
agttgcgcag ctagcggcctt caccttttct gattactaca tgacatgggt acgacaggcg	120
ccaggcaagg gtttggaatg ggtagcattc atacgcaatc aggcacgcgg gtacacttca	180
gaccaccagc cctcagtaaa aggaagattt accatctcaa gagacaatgc caaaaattca	240
ctctacctgc aaatgaactc acttcgcgcc gaggataccg ccgtgtatta ctgtgccaga	300
gacagaccat cttattacgt gctggactat tggggacagg gcactacagt caccgtcagc	360
tct	363

<210> 74
 <211> 336
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic nucleotide sequence

<400> 74	
gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc	60
atcacctgca caagctcaca gtcactgttt aatgtccgca gccagaaaaa ctatcttgcg	120
tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtgatcga	180
gaatccggcg tgccttcag attctccggc tctggctctg gcaccgattt caccctgacc	240
atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttacgacctt	300

ttcacttttg gcggcggaac aaaggtggag atcaag 336

<210> 75

<211> 336

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic nucleotide sequence

<400> 75

gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc 60

atcacctgca caagcgacca gtcactgttt aatgtccgca gcggcaaaaa ctatcttgcg 120

tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtgaccga 180

gaatccggcg tgccttcag attctccggc tctggctctg gcaccgattt caccctgacc 240

atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttacgacctt 300

ttcacttttg gcggcggaac aaaggtggag atcaag 336

<210> 76

<211> 363

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic nucleotide sequence

<400> 76

gaagtgcagc ttgttgaatc tggcggcggt ttggttcagc ccggtggatc actgcgactc 60

agttgcgcag ctagcggctt caccttttct gattactaca tgacatgggt acgacaggcg 120

ccaggcaagg gtttggaatg ggtagcattc atacgcaatc aggaccgcgg gtacacttca 180

gaccaccagc cctcagtaaa aggaagattt accatctcaa gagacaatgc caaaaattca 240

ctctacctgc aaatgaactc acttcgcgcc gaggataccg ccgtgtatta ctgtgccaga 300

gacagaccat cttattacgt gctggactat tggggacagg gcactacagt caccgtcagc 360

tct 363

<210> 77

<211> 336

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic nucleotide sequence

<400> 77
gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc 60
atcacctgca caagctcaca gtcactgttt aatgtccgca gccagaaaaa ctatcttgcg 120
tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtacacga 180
gaatccggcg tgccttccag attctccggc tctggctctg gcaccgattt caccctgacc 240
atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttactacctt 300
ttcacttttg gcggcggaac aaaggtggag atcaag 336

<210> 78
<211> 216
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 78

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

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

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
50 55 60

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys

85

90

95

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 100 105 110

Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro Ser Arg Glu Glu Met
 115 120 125

Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro
 130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 145 150 155 160

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

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
 195 200 205

Lys Ser Leu Ser Leu Ser Pro Gly
 210 215

<210> 79

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 79

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

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

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
 35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 50 55 60

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
 65 70 75 80

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

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Cys Arg Glu Glu Met
 115 120 125

Thr Lys Asn Gln Val Ser Leu Ser Cys Ala Val Lys Gly Phe Tyr Pro
 130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
 145 150 155 160

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

Val Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
 195 200 205

Lys Ser Leu Ser Leu Ser Pro Gly
 210 215

<210> 80

<211> 326
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 80

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
20 25 30

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

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Thr Val Glu Arg Lys Cys Arg Val Arg Cys Pro Arg Cys Pro Ala Pro
100 105 110

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

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ala
130 135 140

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
165 170 175

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
195 200 205

Ser Ser Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile
245 250 255

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Pro Gly Lys
325

<210> 81

<211> 326

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 81

Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
 1 5 10 15

Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 20 25 30

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

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Asn Phe Gly Thr Gln Thr
 65 70 75 80

Tyr Thr Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys
 85 90 95

Thr Val Glu Arg Lys Cys Glu Val Glu Cys Pro Glu Cys Pro Ala Pro
 100 105 110

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

Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Ala
 130 135 140

Val Ser His Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly
 145 150 155 160

Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn
 165 170 175

Ser Thr Phe Arg Val Val Ser Val Leu Thr Val Val His Gln Asp Trp
 180 185 190

Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro
 195 200 205

Ser Ser Ile Glu Lys Thr Ile Ser Lys Thr Lys Gly Gln Pro Arg Glu
210 215 220

Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn
225 230 235 240

Gln Val Ser Leu Thr Cys Glu Val Lys Gly Phe Tyr Pro Ser Asp Ile
245 250 255

Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr
260 265 270

Thr Pro Pro Met Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys
275 280 285

Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys
290 295 300

Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu
305 310 315 320

Ser Leu Ser Pro Gly Lys
325

<210> 82

<211> 216

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 82

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

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

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
50 55 60

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

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

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
115 120 125

Thr Lys Asn Gln Val Ser Leu Ser Cys Leu Val Lys Gly Phe Tyr Pro
130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

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

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Pro Gly
210 215

<210> 83
<211> 336

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic nucleotide sequence

<400> 83
gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc 60
atcacctgca caagctcaca gtcactgttt aatgtccgca gcggaaaaaa ctatcttgcg 120
tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtacacga 180
gaatccggcg tgccttccag attctccggc tctggctctg gcaccgattt caccctgacc 240
atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttacgacctt 300
ttcacttttg gcggcggaac aaaggtggag atcaag 336

<210> 84
<211> 363
<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic nucleotide sequence

<400> 84
gaagtgcagc ttgttgaatc tggcggcggt ttggttcagc ccggtggatc actgcgactc 60
agttgcgcag ctagcggctt caccttttct gattactaca tgacatgggt acgacaggcg 120
ccaggcaagg gtttggaatg ggtagcattc atacgcaatc aggcacgcgg gtacacttca 180
gaccacaatc cctcagtaaa aggaagattt accatctcaa gagacaatgc caaaaattca 240
ctctacctgc aaatgaactc acttcgcgcc gaggataccg ccgtgtatta ctgtgccaga 300
gacagacact cttattacgt gctggactat tggggacagg gcactacagt caccgtcagc 360
tct 363

<210> 85
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 85

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

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

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

Pro Pro Lys Leu Leu Ile Ser Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

Ile Ser Ser Leu Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Lys Gln
85 90 95

Ser Tyr Asp Leu Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 86

<211> 336

<212> DNA

<213> Artificial Sequence

<220>

<223> Synthetic nucleotide sequence

<400> 86

gacatcgtga tgaccagag ccccgatagc ctggccgtgt ctctgggaga gagagccacc 60
atcaactgca agagcagcca gagcctgttc aacgtgagaa gccggaagaa ctacctggcc 120
tggtatcagc agaaacccgg ccagcccccc aagctgctga tcagctgggc cagcaccaga 180
gaaagcggcg tgcccgatag attcagcggc agcgggaagcg gcaccgactt caccctgaca 240
atcagctccc tgcaggccga ggacgtggcc gtgtactact gcaagcagag ctacgacctg 300
ttcaccttcg gcagcggcac caagctggaa atcaaa 336

<210> 87
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide sequence

<400> 87

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 Thr Ser Ser Glu Ser Leu Phe Asn Val
 20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asp Arg Glu Ser Gly Val
 50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 88
 <211> 336
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Synthetic nucleotide sequence

<400> 88

gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc 60

atcacctgca caagctcaga gtcactgttt aatgtccgca gcggcaaaaa ctatcttgcg 120
 tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtgaccga 180
 gaatccggcg tgccttcag attctccggc tctggctctg gcaccgattt caccctgacc 240
 atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttacgacctt 300
 ttcacttttg gcggcggaac aaaggtggag atcaag 336

<210> 89
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide sequence

<400> 89

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
 20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asp Arg Glu Ser Gly Val
 50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 90
 <211> 336

<212> DNA
<213> Artificial Sequence

<220>
<223> Synthetic nucleotide sequence

<400> 90
gacatccaga tgaccagtc cccctcttct ctgtctgcct ctgtgggcga cagagtgacc 60
atcacctgca caagctcaca gtcactgttt aatgtccgca gcggcaaaaa ctatcttgcg 120
tggtatcagc agaagcctgg caaggctccc aagctgctga tctactgggc cagtgaccga 180
gaatccggcg tgccttccag attctccggc tctggctctg gcaccgattt caccctgacc 240
atctcctccc tccagcctga ggatttcgcc acctactact gcaaacagtc ttacgacctt 300
ttcacttttg gcggcggaac aaaggtggag atcaag 336

<210> 91
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 91

Thr	Ser	Ser	Glu	Ser	Leu	Phe	Asn	Val	Arg	Ser	Gly	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 92
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 92

Thr	Ser	Ser	Gln	Ser	Leu	Phe	Asn	Val	Arg	Ser	Gly	Lys	Asn	Tyr	Leu
1				5					10					15	

Ala

<210> 93

<211> 461

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 93

Asp Ile Gln Leu 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 Glu Ser Val Asp Tyr Tyr
20 25 30

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

Lys Leu Leu Ile Tyr Ala Ala Ser Lys Leu Ala Ser Gly Val Pro Ser
50 55 60

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

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

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

Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly
115 120 125

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
130 135 140

Phe Thr Phe Ser Asp Tyr Tyr Met Thr Trp Val Arg Gln Ala Pro Gly
 145 150 155 160

Lys Gly Leu Glu Trp Val Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr
 165 170 175

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

Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
 195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr
 210 215 220

Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
 225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala Pro Ser Val Phe
 245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
 305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
 355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val
 370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
 405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
 450 455 460

<210> 94

<211> 465

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 94

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
 20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Thr Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser
115 120 125

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
130 135 140

Ala Ser Gly Phe Thr Phe Ser Ser Tyr Trp Met His Trp Val Arg Gln
145 150 155 160

Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Lys Pro Ser Asn
165 170 175

Glu Leu Thr Asn Val His Glu Lys Phe Lys Asp Arg Phe Thr Ile Ser
180 185 190

Val Asp Lys Ala Lys Asn Ser Ala Tyr Leu Gln Met Asn Ser Leu Arg
195 200 205

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Arg Thr Ile Thr Thr Thr
210 215 220

Glu Gly Tyr Trp Phe Phe Asp Val Trp Gly Gln Gly Thr Leu Val Thr
225 230 235 240

Val Ser Ser Gly Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
260 265 270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
340 345 350

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Cys Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
370 375 380

Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp
420 425 430

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
450 455 460

Gly
465

<210> 95
<211> 461
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic peptide sequence

<400> 95

Asp Ile Gln Leu 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 Glu Ser Val Asp Tyr Tyr
20 25 30

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

Lys Leu Leu Ile Tyr Ala Ala Ser Lys Leu Ala Ser Gly Val Pro Ser
50 55 60

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

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

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

Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly
115 120 125

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
130 135 140

Phe Thr Phe Ser Asp Tyr Tyr Met Thr Trp Val Arg Gln Ala Pro Gly
 145 150 155 160

Lys Gly Leu Glu Trp Val Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr
 165 170 175

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

Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
 195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr
 210 215 220

Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
 225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala Pro Ser Val Phe
 245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
 305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
 340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
 355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val
 370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
 405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
 450 455 460

<210> 96

<211> 465

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 96

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 Thr Ser Asp Gln Ser Leu Phe Asn Val
 20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asp Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser
115 120 125

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
130 135 140

Ala Ser Gly Phe Thr Phe Ser Ser Tyr Trp Met His Trp Val Arg Gln
145 150 155 160

Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Lys Pro Ser Asn
165 170 175

Glu Leu Thr Asn Val His Glu Lys Phe Lys Asp Arg Phe Thr Ile Ser
180 185 190

Val Asp Lys Ala Lys Asn Ser Ala Tyr Leu Gln Met Asn Ser Leu Arg
195 200 205

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Arg Thr Ile Thr Thr Thr
210 215 220

Glu Gly Tyr Trp Phe Phe Asp Val Trp Gly Gln Gly Thr Leu Val Thr
225 230 235 240

Val Ser Ser Gly Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
260 265 270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
340 345 350

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Cys Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
370 375 380

Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp
420 425 430

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

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

450

455

460

Gly
465

<210> 97

<211> 461

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 97

Asp Ile Gln Leu 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 Glu Ser Val Asp Tyr Tyr
20 25 30

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

Lys Leu Leu Ile Tyr Ala Ala Ser Lys Leu Ala Ser Gly Val Pro Ser
50 55 60

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

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

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

Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly
115 120 125

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
130 135 140

Phe Thr Phe Ser Asp Tyr Tyr Met Thr Trp Val Arg Gln Ala Pro Gly
145 150 155 160

Lys Gly Leu Glu Trp Val Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr
165 170 175

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

Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr
210 215 220

Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala Pro Ser Val Phe
245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser

340

345

350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
 355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val
 370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
 385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
 405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
 420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
 435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
 450 455 460

<210> 98

<211> 465

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 98

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 Thr Ser Ser Gln Ser Leu Phe Asn Val
 20 25 30

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

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asp Arg Glu Ser Gly Val
50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser
115 120 125

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
130 135 140

Ala Ser Gly Phe Thr Phe Ser Ser Tyr Trp Met His Trp Val Arg Gln
145 150 155 160

Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Lys Pro Ser Asn
165 170 175

Glu Leu Thr Asn Val His Glu Lys Phe Lys Asp Arg Phe Thr Ile Ser
180 185 190

Val Asp Lys Ala Lys Asn Ser Ala Tyr Leu Gln Met Asn Ser Leu Arg
195 200 205

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Arg Thr Ile Thr Thr Thr
210 215 220

Glu Gly Tyr Trp Phe Phe Asp Val Trp Gly Gln Gly Thr Leu Val Thr
225 230 235 240

Val Ser Ser Gly Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala

245	250	255
Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile		
260	265	270
Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu		
275	280	285
Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His		
290	295	300
Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg		
305	310	315
Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys		
325	330	335
Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu		
340	345	350
Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr		
355	360	365
Thr Leu Pro Pro Cys Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu		
370	375	380
Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp		
385	390	395
Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val		
405	410	415
Leu Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp		
420	425	430
Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His		
435	440	445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
 450 455 460

Gly
 465

<210> 99
 <211> 461
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic peptide sequence

<400> 99

Asp Ile Gln Leu 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 Glu Ser Val Asp Tyr Tyr
 20 25 30

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

Lys Leu Leu Ile Tyr Ala Ala Ser Lys Leu Ala Ser Gly Val Pro Ser
 50 55 60

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

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

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

Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 115 120 125

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly

130

135

140

Phe Thr Phe Ser Asp Tyr Tyr Met Thr Trp Val Arg Gln Ala Pro Gly
 145 150 155 160

Lys Gly Leu Glu Trp Val Ala Phe Ile Arg Asn Gln Ala Arg Gly Tyr
 165 170 175

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

Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
 195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Pro Ser Tyr Tyr
 210 215 220

Val Leu Asp Tyr Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
 225 230 235 240

Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala Pro Ser Val Phe
 245 250 255

Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro
 260 265 270

Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val
 275 280 285

Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr
 290 295 300

Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val
 305 310 315 320

Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys
 325 330 335

Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser
340 345 350

Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Cys Thr Leu Pro Pro
355 360 365

Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val
370 375 380

Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly
385 390 395 400

Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp
405 410 415

Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp
420 425 430

Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His
435 440 445

Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
450 455 460

<210> 100

<211> 465

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic peptide sequence

<400> 100

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 Thr Ser Ser Glu Ser Leu Phe Asn Val
20 25 30

Arg Ser Gly Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys

35

40

45

Ala Pro Lys Leu Leu Ile Tyr Trp Ala Ser Asp Arg Glu Ser Gly Val
 50 55 60

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

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

Ser Tyr Asp Leu Phe Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 100 105 110

Gly Gly Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser
 115 120 125

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 130 135 140

Ala Ser Gly Phe Thr Phe Ser Ser Tyr Trp Met His Trp Val Arg Gln
 145 150 155 160

Ala Pro Gly Lys Gly Leu Glu Trp Ile Gly Glu Ile Lys Pro Ser Asn
 165 170 175

Glu Leu Thr Asn Val His Glu Lys Phe Lys Asp Arg Phe Thr Ile Ser
 180 185 190

Val Asp Lys Ala Lys Asn Ser Ala Tyr Leu Gln Met Asn Ser Leu Arg
 195 200 205

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Thr Arg Thr Ile Thr Thr Thr
 210 215 220

Glu Gly Tyr Trp Phe Phe Asp Val Trp Gly Gln Gly Thr Leu Val Thr
 225 230 235 240

Val Ser Ser Gly Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Ala
245 250 255

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
260 265 270

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
275 280 285

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
290 295 300

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
305 310 315 320

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
325 330 335

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
340 345 350

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
355 360 365

Thr Leu Pro Pro Cys Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
370 375 380

Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
385 390 395 400

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
405 410 415

Leu Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp
420 425 430

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
435 440 445

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
450 455 460

Gly
465