

45375_705_601_SeqList
SEQUENCE LISTING

<110> EVNIN, LUKE
GUENOT, JEANMARIE
KUNKEL, LORI

<120> METHODS OF USING BISPECIFIC CD33 AND CD3 BINDING PROTEINS

<130> 45375-705.601

<150> 62/168,641
<151> 2015-05-29
<152> 62/266,438
<153> 2015-12-11

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<170> PatentIn version 3.5

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Thr Ala Met Ile Thr Cys Gly Gly Asn Asn Ile Gly Ser Thr Thr Val
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His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Val Tyr
35 40 45

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

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

Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
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85 90 95

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

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

Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

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

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Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
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35 40 45

Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp Ser Leu
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Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
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Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
 35 40 45

Ile Tyr Ser Asp Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
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Arg Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly
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Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu
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Leu Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe
50 55 60

Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu
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Leu Ser Asp Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
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Ile Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Ser Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln

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Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asp Asn
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Val Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
35 40 45

Ile Tyr Ser Thr Asn Lys Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

Leu Gln Met Thr Ser Leu Arg Pro Glu Asp Thr Ala Val Tyr Tyr Cys
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Ala Lys Asp Arg Leu Glu Ser Ala Ala Phe Asp Tyr Trp Gly Gln Gly
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Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

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

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Ala	Arg	Asp	Arg	Ala	Asn	Thr
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						Ser
						Gly
						Tyr
						Thr
						Phe
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						Ser
						Tyr
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						25
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						Gly
						Leu
						Glu
						Trp
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						Gly
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						Tyr
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						Glu
						Asp
						Thr
						Ala
						Val
						Tyr
						Tyr
						Cys
						85
						90
						95
Ala	Arg	Asp	Arg	Ala	Val	Thr
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						Tyr
						Tyr
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						Gly
						Met
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Asp Ile Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80

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

Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly Met Asp Val Trp
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Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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35 40 45

Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe Ala Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr
65 70 75 80

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

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

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

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
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Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met
 35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Ser Ala His Tyr Ala Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
 65 70 75 80

Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
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Gly Gln Gly Thr Leu Val Thr Val Ser Ser
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 35 40 45

Gly Gly Ile Ile Pro Ile Phe Gly Ser Ala His Tyr Ser Gln Lys Phe
 50 55 60

Gln Gly Arg Val Thr Ile Thr Ala Asp Glu Ser Thr Ser Thr Ala Tyr
 65 70 75 80

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

Ala Arg Glu Tyr Tyr Tyr Asp Ser Ser Glu Trp Ala Phe Asp Ile Trp
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Ser Asn Asn Gln Arg Pro Ser
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Ala Thr Trp Asp Asp Ser Leu Asn Gly
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Ala Ala Trp Asp Asp Ser Leu Lys Gly
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Gln Gly

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

<210> 62
<211> 10
<212> PRT
<213> Homo sapiens

<400> 62

His Lys Arg Gly Ser Asp Ala Phe Asp Ile
1 5 10

45375_705_601_SeqList

<210> 63
 <211> 13
 <212> PRT
 <213> Homo sapiens

<400> 63

Glu Tyr Tyr Tyr Asp Ser Ser Glu Trp Ala Phe Asp Ile
 1 5 10

<210> 64
 <211> 125
 <212> PRT
 <213> Homo sapiens

<400> 64

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

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

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

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

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

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

Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Tyr Phe
 100 105 110

Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser

45375_705_601_SeqList

115

120

125

<210> 65
 <211> 125
 <212> PRT
 <213> Homo sapiens
 <400> 65

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

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

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

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

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

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

Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
 100 105 110

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

<210> 66
 <211> 125
 <212> PRT
 <213> Homo sapiens
 <400> 66

45375_705_601_SeqList

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

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

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

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

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

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

Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
100 105 110

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

<210> 67
<211> 125
<212> PRT
<213> Homo sapiens

<400> 67

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

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

45375_705_601_SeqList

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

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

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

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

Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
100 105 110

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

<210> 68
<211> 110
<212> PRT
<213> Homo sapiens

<400> 68

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser

45375_705_601_SeqList

65		70		75		80									
Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Ala	Leu	Trp	Tyr	Ser
				85				90						95	
Asn	Leu	Trp	Val	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys		
			100					105					110		
<210>	69														
<211>	110														
<212>	PRT														
<213>	Homo sapiens														
<400>	69														
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	Ser	Ser	Thr	Gly	Ala	Val	Thr	Thr
			20					25					30		
Ser	Asn	Tyr	Ala	Asn	Trp	Val	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys
		35					40				45				
Gly	Leu	Ile	Gly	Gly	Thr	Asn	Lys	Arg	Ala	Pro	Gly	Val	Pro	Ala	Arg
	50					55					60				
Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser
65					70					75				80	
Leu	Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Ala	Leu	Trp	Tyr	Ser
				85				90						95	
Asn	Leu	Trp	Val	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys		
			100					105					110		
<210>	70														
<211>	110														

45375_705_601_SeqList

<212> PRT

<213> Homo sapiens

<400> 70

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
100 105 110

<210> 71

<211> 110

<212> PRT

<213> Homo sapiens

<400> 71

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

45375_705_601_SeqList

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

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

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
 100 105 110

<210> 72
 <211> 6
 <212> PRT
 <213> Homo sapiens

<400> 72

Ser Thr Tyr Ala Met Asn
 1 5

<210> 73
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 73

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

Val Lys Asp

<210> 74
 <211> 14

45375_705_601_SeqList

<212> PRT

<213> Homo sapiens

<400> 74

His	Gly	Asn	Phe	Gly	Asn	Ser	Tyr	Val	Ser	Trp	Phe	Ala	Tyr
1				5					10				

<210> 75

<211> 14

<212> PRT

<213> Homo sapiens

<400> 75

His	Gly	Asn	Phe	Gly	Asn	Ser	Tyr	Val	Ser	Tyr	Phe	Ala	Tyr
1				5					10				

<210> 76

<211> 6

<212> PRT

<213> Homo sapiens

<400> 76

Asn	Thr	Tyr	Ala	Met	Asn
1				5	

<210> 77

<211> 6

<212> PRT

<213> Homo sapiens

<400> 77

Asn	Thr	Tyr	Ala	Met	His
1				5	

<210> 78

<211> 6

<212> PRT

<213> Homo sapiens

<400> 78

45375_705_601_SeqList

Asn Lys Tyr Ala Met Asn
1 5

<210> 79
<211> 19
<212> PRT
<213> Homo sapiens

<400> 79

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

Val Lys Asp

<210> 80
<211> 19
<212> PRT
<213> Homo sapiens

<400> 80

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

Val Lys Asp

<210> 81
<211> 19
<212> PRT
<213> Homo sapiens

<400> 81

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

Val Lys Asp

45375_705_601_SeqList

<210> 82
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 82

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

Val Lys Asp

<210> 83
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 83

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

Val Lys Gly

<210> 84
 <211> 19
 <212> PRT
 <213> Homo sapiens

<400> 84

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

Val Lys Ser

<210> 85

45375_705_601_SeqList

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

<400> 85

His	Gly	Asn	Phe	Gly	Asp	Ser	Tyr	Val	Ser	Trp	Phe	Ala	Tyr
1				5					10				

<210> 86
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 86

His	Gly	Asn	Phe	Gly	Asn	Thr	Tyr	Val	Ser	Trp	Phe	Ala	Tyr
1				5					10				

<210> 87
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 87

His	Gly	Asn	Phe	Gly	Cys	Ser	Tyr	Val	Ser	Trp	Phe	Ala	Tyr
1				5					10				

<210> 88
 <211> 14
 <212> PRT
 <213> Homo sapiens

<400> 88

His	Gly	Asn	Phe	Gly	Asn	Ser	Tyr	Ile	Ser	Tyr	Trp	Ala	Tyr
1				5					10				

<210> 89
 <211> 14
 <212> PRT
 <213> Homo sapiens

45375_705_601_SeqList

<400> 89

His Gly Asn Phe Gly Asn Ser Tyr Val Ser Phe Phe Ala Tyr
1 5 10

<210> 90

<211> 14

<212> PRT

<213> Homo sapiens

<400> 90

Arg Ser Ser Thr Gly Ala Val Thr Thr Ser Asn Tyr Ala Asn
1 5 10

<210> 91

<211> 7

<212> PRT

<213> Homo sapiens

<400> 91

Gly Thr Asn Lys Arg Ala Pro
1 5

<210> 92

<211> 7

<212> PRT

<213> Homo sapiens

<400> 92

Ala Leu Trp Tyr Ser Asn Leu
1 5

<210> 93

<211> 242

<212> PRT

<213> Homo sapiens

<400> 93

Asp Pro Asn Phe Trp Leu Gln Val Gln Glu Ser Val Thr Val Gln Glu
1 5 10 15

45375_705_601_SeqList

Gly Leu Cys Val Leu Val Pro Cys Thr Phe Phe His Pro Ile Pro Tyr
20 25 30

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

Ile Ile Ser Arg Asp Ser Pro Val Ala Thr Asn Lys Leu Asp Gln Glu
50 55 60

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

Arg Asn Asn Cys Ser Leu Ser Ile Val Asp Ala Arg Arg Arg Asp Asn
85 90 95

Gly Ser Tyr Phe Phe Arg Met Glu Arg Gly Ser Thr Lys Tyr Ser Tyr
100 105 110

Lys Ser Pro Gln Leu Ser Val His Val Thr Asp Leu Thr His Arg Pro
115 120 125

Lys Ile Leu Ile Pro Gly Thr Leu Glu Pro Gly His Ser Lys Asn Leu
130 135 140

Thr Cys Ser Val Ser Trp Ala Cys Glu Gln Gly Thr Pro Pro Ile Phe
145 150 155 160

Ser Trp Leu Ser Ala Ala Pro Thr Ser Leu Gly Pro Arg Thr Thr His
165 170 175

Ser Ser Val Leu Ile Ile Thr Pro Arg Pro Gln Asp His Gly Thr Asn
180 185 190

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

45375_705_601_SeqList

Thr Ile Gln Leu Asn Val Thr Tyr Val Pro Gln Asn Pro Thr Thr Gly
 210 215 220

Ile Phe Pro Gly Asp Gly Ser Gly Lys Gln Glu Thr Arg Ala Gly Val
 225 230 235 240

Val His

<210> 94
 <211> 9
 <212> PRT
 <213> Homo sapiens

<400> 94

Asp Gln Glu Val Gln Glu Glu Thr Gln
 1 5

<210> 95
 <211> 6
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 95

Gly Gly Ser Gly Gly Ser
 1 5

<210> 96
 <211> 4
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic peptide

<400> 96

45375_705_601_SeqList

Gly Gly Ser Gly
1

<210> 97
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic peptide

<400> 97

Gly Gly Ser Gly Gly
1 5

<210> 98
<211> 494
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<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 Arg Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

45375_705_601_SeqList

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Phe Ser Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

45375_705_601_SeqList

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

45375_705_601_SeqList

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
 465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
 485 490

<210> 99

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 99

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
 50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

Ser Gly Gly Ser Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys

45375_705_601_SeqList

115

120

125

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
 130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
 165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
 180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
 195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Val Thr Asp Tyr Tyr Tyr Gly
 210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
 245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
 260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
 275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
 290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly

45375_705_601_SeqList

305		310		315		320
Leu	Gln	Ser	Glu	Asp	Glu	Ala
			325			
				Tyr	Tyr	Cys
				330		
					Ala	Thr
					Trp	Asp
						335
Ser	Leu	Ile	Gly	Trp	Val	Phe
			340			
				Gly	Gly	Gly
				345		
					Thr	Lys
					Leu	Thr
						350
Gly	Gly	Ser	Gly	Gly	Ser	Glu
			355			
				Val	Gln	Leu
				360		
					Val	Glu
						365
					Ser	Gly
						Gly
						Gly
Leu	Val	Gln	Pro	Gly	Gly	Ser
						375
				Leu	Arg	Leu
						380
					Ser	Cys
						385
Phe	Thr	Phe	Ser	Thr	Tyr	Ala
						390
					Met	Asn
					Trp	Val
						395
					Arg	Gln
						Ala
						Pro
						400
Lys	Gly	Leu	Glu	Trp	Val	Gly
						405
					Arg	Ile
						410
					Arg	Ser
						Lys
						Tyr
						Asn
						415
Ala	Thr	Tyr	Tyr	Ala	Asp	Ser
						420
					Val	Lys
						425
					Asp	Arg
						Phe
						Thr
						Ile
						430
Asp	Asp	Ser	Lys	Asn	Ser	Leu
						440
					Tyr	Leu
						445
					Gln	Met
						Asn
						Ser
						Leu
						Lys
						445
Glu	Asp	Thr	Ala	Val	Tyr	Tyr
						455
						Cys
						460
						Ala
						Arg
						His
						Gly
						Asn
						Phe
						Gly
						450
Ser	Tyr	Val	Ser	Trp	Phe	Ala
						470
						Tyr
						Trp
						Gly
						Gln
						475
						Gly
						Thr
						Leu
						Val
						480
Val	Ser	Ser	Ala	Ala	Ala	Gly
						485
						Ser
						His
						490
						His
						His
						His
						His
						His

<210> 100

45375_705_601_SeqList

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<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 Arg Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

45375_705_601_SeqList

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

45375_705_601_SeqList

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 101

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 101

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

45375_705_601_SeqList

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

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195

200

205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

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

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Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly
210 215 220

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

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Ser	Gly	Gly	Gln	Ser	Val	Leu	Thr	Gln	Pro	Pro	Ser	Ala	Ser	Gly	Thr
				245					250					255	
Pro	Gly	Gln	Arg	Val	Thr	Ile	Ser	Cys	Ser	Gly	Ser	Arg	Ser	Asn	Ile
			260					265					270		
Gly	Ser	Asn	Thr	Val	Asn	Trp	Tyr	Gln	Gln	Leu	Pro	Gly	Thr	Ala	Pro
		275					280					285			
Lys	Leu	Leu	Ile	Tyr	Gly	Asn	Asn	Gln	Arg	Pro	Ser	Gly	Val	Pro	Asp
	290					295					300				
Arg	Phe	Ser	Gly	Ser	Lys	Ser	Gly	Thr	Ser	Ala	Ser	Leu	Ala	Ile	Ser
305					310					315					320
Gly	Leu	Gln	Ser	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Ala	Thr	Trp	Asp
				325					330					335	
Asp	Ser	Leu	Ile	Gly	Trp	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val
			340					345					350		
Leu	Gly	Gly	Ser	Gly	Gly	Ser	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly
		355					360					365			
Gly	Leu	Val	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser
		370				375					380				
Gly	Phe	Thr	Phe	Ser	Thr	Tyr	Ala	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro
385					390					395					400
Gly	Lys	Gly	Leu	Glu	Trp	Val	Gly	Arg	Ile	Arg	Ser	Lys	Tyr	Asn	Asn
				405					410					415	
Tyr	Ala	Thr	Tyr	Tyr	Ala	Asp	Ser	Val	Lys	Asp	Arg	Phe	Thr	Ile	Ser
			420					425					430		

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Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly
450 455 460

Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
465 470 475 480

Thr Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490 495

<210> 103

<211> 495

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 103

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ala Leu Trp Tyr Ser

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85

90

95

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr
245 250 255

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile
260 265 270

Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro

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275

280

285

Lys Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp
290 295 300

Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser
305 310 315 320

Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
325 330 335

Asp Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
340 345 350

Leu Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
355 360 365

Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
370 375 380

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
385 390 395 400

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
405 410 415

Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
420 425 430

Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly
450 455 460

Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val

465 470 475 480

```
<210> 104
<211> 491
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 104
```

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

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

Phe Ser Asn Tyr Gly Ile His Trp Val Arg Gln Ala Pro Gly Lys Gly
145 150 155 160

Leu Glu Trp Val Ala Leu Ile Ser Tyr Asp Gly Asn Lys Lys Phe Tyr
165 170 175

Ala Asp Ser Val Lys Gly Arg Phe Ala Ile Ser Arg Asp Thr Ser Lys
180 185 190

Asn Thr Val Asp Leu Gln Met Thr Ser Leu Arg Pro Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Lys Asp Arg Leu Glu Ser Ala Ala Phe Asp Tyr
210 215 220

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

Ser Ser Tyr Glu Leu Thr Gln Pro Pro Ser Val Ser Val Ala Pro Gly
245 250 255

Gln Thr Ala Met Ile Thr Cys Gly Gly Asn Asn Ile Gly Ser Thr Thr
260 265 270

Val His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Val
275 280 285

Tyr Asp Asp Asn Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly
290 295 300

Ser Asn Ser Gly Ser Thr Ala Thr Leu Thr Ile Asn Arg Val Glu Ala
305 310 315 320

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Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Ser Gly Ser Asp
 325 330 335

His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Ser
 340 345 350

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 355 360 365

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 370 375 380

Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 385 390 395 400

Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr
 405 410 415

Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser
 420 425 430

Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr
 435 440 445

Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val
 450 455 460

Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 465 470 475 480

Ala Ala Ala Gly Ser His His His His His His
 485 490

<210> 105
 <211> 496
 <212> PRT

45375_705_601_SeqList

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 105

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

Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly Ser Asn
20 25 30

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

Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp Ser Leu
85 90 95

Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
100 105 110

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

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
130 135 140

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

Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr

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165

170

175

Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp
180 185 190

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

Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr
210 215 220

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

Ser Gly Gly Ser Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser
245 250 255

Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ser
260 265 270

Ser Thr Gly Ala Val Thr Thr Ser Asn Tyr Ala Asn Trp Val Gln Gln
275 280 285

Lys Pro Gly Lys Ala Pro Lys Ala Leu Ile Gly Gly Thr Asn Lys Arg
290 295 300

Ala Pro Gly Val Pro Ser Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys
305 310 315 320

Ala Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr
325 330 335

Tyr Cys Ala Leu Trp Tyr Ser Asn Leu Trp Val Phe Gly Gln Gly Thr
340 345 350

Lys Val Glu Ile Lys Gly Gly Ser Gly Gly Ser Gln Val Gln Leu Val

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355

360

365

Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser
370 375 380

Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr Asp Ile Asn Trp Val
385 390 395 400

Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Met Asn Pro
405 410 415

Asn Ser Gly Asn Thr Gly Phe Ala Gln Lys Phe Gln Gly Arg Val Thr
420 425 430

Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Glu Leu Ser Ser
435 440 445

Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Ala
450 455 460

Asn Thr Asp Phe Ser Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Leu
465 470 475 480

Val Thr Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490 495

<210> 106

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 106

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

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

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Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Phe Ser Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

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Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
 405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
 420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
 435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
 450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
 465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
 485 490

<210> 107

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 107

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ser Arg

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50

55

60

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro

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245

250

255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr

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435

440

445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 108

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 108

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

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Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

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Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

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Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 109

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 109

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr

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130

135

140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Val Thr Asp Tyr Tyr Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp

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325

330

335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 110

<211> 494

<212> PRT

<213> Artificial Sequence

45375_705_601_SeqList

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 110

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

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Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Val Thr Asp Tyr Tyr Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

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Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 111

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 111

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 Ser Ser Thr Gly Ala Val Thr Thr

45375_705_601_SeqList

20

25

30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Phe Ser Tyr Gly

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210

215

220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr

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405

410

415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 112

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 112

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

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Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

45375_705_601_SeqList

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

45375_705_601_SeqList

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 113

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 113

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly

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100

105

110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg

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290

295

300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His

<210> 114

<211> 492

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 114

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
 65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

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

Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser
 130 135 140

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Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly
145 150 155 160

Leu Glu Trp Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr
165 170 175

Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile
180 185 190

Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala
195 200 205

Met Tyr Tyr Cys Ala Arg His Lys Arg Gly Ser Asp Ala Phe Asp Ile
210 215 220

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Ser Gly Gln
225 230 235 240

Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln Arg
245 250 255

Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr
260 265 270

Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
275 280 285

Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
290 295 300

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
305 310 315 320

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser Leu
325 330 335

45375_705_601_SeqList

Ser Asp Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
340 345 350

Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
355 360 365

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
370 375 380

Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly
385 390 395 400

Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr
405 410 415

Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp
420 425 430

Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp
435 440 445

Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr
450 455 460

Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
465 470 475 480

Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 115

<211> 492

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

45375_705_601_SeqList

<400> 115

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

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

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

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

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

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

Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Tyr Phe
100 105 110

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

Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala
130 135 140

Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile
145 150 155 160

Gly Ala Gly Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala
165 170 175

Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro

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180

185

190

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile
195 200 205

Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr
210 215 220

Asp Ser Ser Leu Ser Asp Val Val Phe Gly Gly Gly Thr Lys Leu Thr
225 230 235 240

Val Leu Gly Gly Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
245 250 255

Val Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly
260 265 270

Tyr Ser Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly
275 280 285

Lys Gly Leu Glu Trp Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr
290 295 300

Arg Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys
305 310 315 320

Ser Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp
325 330 335

Thr Ala Met Tyr Tyr Cys Ala Arg His Lys Arg Gly Ser Asp Ala Phe
340 345 350

Asp Ile Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Ser
355 360 365

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

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370

375

380

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Thr Gly Ala
385 390 395 400

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

Ala Pro Lys Ala Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val
420 425 430

Pro Ser Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr
435 440 445

Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ala Leu
450 455 460

Trp Tyr Ser Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile
465 470 475 480

Lys Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 116

<211> 495

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 116

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Val Val Pro Ala Ala Ile Asp Tyr Tyr
210 215 220

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Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
225 230 235 240

Gly Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr
245 250 255

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile
260 265 270

Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
275 280 285

Lys Leu Leu Ile Tyr Ser Asp Asn Gln Arg Pro Ser Gly Val Pro Asp
290 295 300

Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser
305 310 315 320

Gly Leu Gln Ser Asp Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
325 330 335

Asp Ser Leu Asn Gly Ala Val Phe Gly Gly Gly Thr Lys Leu Thr Val
340 345 350

Leu Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
355 360 365

Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
370 375 380

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
385 390 395 400

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
405 410 415

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Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
420 425 430

Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly
450 455 460

Asn Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
465 470 475 480

Thr Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490 495

<210> 117

<211> 495

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 117

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser

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

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260

265

270

Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
275 280 285

Lys Leu Leu Ile Tyr Ser Asp Asn Gln Arg Pro Ser Gly Val Pro Asp
290 295 300

Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser
305 310 315 320

Gly Leu Gln Ser Asp Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
325 330 335

Asp Ser Leu Asn Gly Ala Val Phe Gly Gly Gly Thr Lys Leu Thr Val
340 345 350

Leu Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
355 360 365

Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
370 375 380

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
385 390 395 400

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
405 410 415

Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
420 425 430

Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly

45375_705_601_SeqList

450

455

460

Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
465 470 475 480

Thr Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490 495

<210> 118

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 118

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
130 135 140

Phe Ser Ser Tyr Ala Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly
145 150 155 160

Leu Glu Trp Met Gly Gly Ile Tyr Pro Ile Phe Gly Ser Ala Asn Tyr
165 170 175

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

Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Glu Tyr Tyr Tyr Asp Ser Ser Glu Trp Ala
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
260 265 270

Ser Asn Ile Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Ser Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

45375_705_601_SeqList

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
325 330 335

Ser Leu Lys Gly Tyr Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

45375_705_601_SeqList

<210> 119
 <211> 494
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Description of Artificial Sequence: Synthetic polypeptide

<400> 119

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
 65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

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

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
 130 135 140

Phe Ser Ser Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly

45375_705_601_SeqList

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

45375_705_601_SeqList

340

345

350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
 385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
 405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
 420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
 435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
 450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
 465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
 485 490

<210> 120

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 120

45375_705_601_SeqList

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
130 135 140

Phe Ser Ser Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly
145 150 155 160

Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Ser Ala His Tyr
165 170 175

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

45375_705_601_SeqList

Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Glu Tyr Tyr Tyr Asp Ser Ser Glu Trp Ala
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Lys Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Ser Asn Asn Gln Arg Ser Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
325 330 335

Ser Leu Asn Gly Tyr Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

45375_705_601_SeqList

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 121

<211> 494

<212> PRT

<213> Artificial Sequence

<220>

<223> Description of Artificial Sequence: Synthetic polypeptide

<400> 121

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

Ser Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Lys Ala Pro Lys

45375_705_601_SeqList

35

40

45

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
 65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

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

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
 130 135 140

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

Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Ser Ala His Tyr
 165 170 175

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

Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
 195 200 205

Val Tyr Tyr Cys Ala Arg Glu Tyr Tyr Tyr Asp Ser Ser Glu Trp Ala
 210 215 220

Phe Asp Ile Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly

45375_705_601_SeqList

225		230		235		240
Ser	Gly	Gln	Ser	Val	Leu	Thr
				245		
					Pro	Pro
					250	
					Ser	Ala
					Ser	Gly
						Thr
						Pro
						255
Gly	Gln	Arg	Val	Thr	Ile	Ser
			260			
					Cys	Ser
					265	
					Gly	Ser
					Ser	Ser
					Ser	Asn
						Ile
						Gly
						270
Asp	Asn	Val	Val	Asn	Trp	Tyr
		275				
					Gln	Gln
					280	
					Leu	Pro
					Gly	Thr
						Ala
						Pro
						Lys
						285
Leu	Leu	Ile	Tyr	Ser	Thr	Asn
	290					295
					Lys	Arg
					Pro	Ser
					Gly	Val
					300	Pro
						Asp
						Arg
Phe	Ser	Gly	Ser	Lys	Ser	Gly
305				310		
					Ser	Ala
					315	
					Leu	Ala
						Ile
						Ser
						Gly
						320
Leu	Gln	Ser	Glu	Asp	Glu	Ala
			325			Asp
					Tyr	Tyr
					330	Cys
						Ala
						Ala
						Trp
						Asp
						Asp
						335
Ser	Leu	Ser	Ala	Tyr	Val	Phe
			340			
					Gly	Gly
					345	Gly
					Thr	Lys
						Leu
						Thr
						Val
						Leu
Gly	Gly	Ser	Gly	Gly	Ser	Glu
		355				Val
						Gln
						Leu
						Val
						Glu
						Ser
						Gly
						Gly
						Gly
						365
Leu	Val	Gln	Pro	Gly	Gly	Ser
	370					375
					Leu	Arg
					Leu	Ser
						Cys
						380
						Ala
						Ala
						Ser
						Gly
Phe	Thr	Phe	Ser	Thr	Tyr	Ala
385					390	
						Met
						Asn
						Trp
						Val
						Arg
						Gln
						Ala
						Pro
						Gly
						400
Lys	Gly	Leu	Glu	Trp	Val	Gly
				405		
						Arg
						Ile
						Arg
						Ser
						Lys
						Tyr
						Asn
						Asn
						Tyr
						415
Ala	Thr	Tyr	Tyr	Ala	Asp	Ser
						Val
						Lys
						Asp
						Arg
						Phe
						Thr
						Ile
						Ser
						Arg

45375_705_601_SeqList

420

425

430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser Ala Ala Ala Gly Ser His His His His His His
485 490

<210> 122
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Description of Artificial Sequence: Synthetic 6xHis tag

<400> 122

His His His His His His
1 5

<210> 123
<211> 483
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<400> 123

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 Ser Ser Thr Gly Ala Val Thr Thr

45375_705_601_SeqList

20

25

30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Phe Ser Tyr Gly

45375_705_601_SeqList

210

215

220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr

45375_705_601_SeqList

405

410

415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 124

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 124

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

45375_705_601_SeqList

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Val Thr Asp Tyr Tyr Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

45375_705_601_SeqList

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

45375_705_601_SeqList

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 125
<211> 483
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<400> 125

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly

45375_705_601_SeqList

100

105

110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
 130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
 165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
 180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
 195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly
 210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
 245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
 260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
 275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg

45375_705_601_SeqList

290

295

300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

45375_705_601_SeqList

<210> 126
 <211> 483
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<400> 126

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
 50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
 130 135 140

45375_705_601_SeqList

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

45375_705_601_SeqList

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 127

<211> 484

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

45375_705_601_SeqList

<400> 127

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr

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180

185

190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly
210 215 220

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

Ser Gly Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr
245 250 255

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile
260 265 270

Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
275 280 285

Lys Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp
290 295 300

Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser
305 310 315 320

Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
325 330 335

Asp Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
340 345 350

Leu Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
355 360 365

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

45375_705_601_SeqList

370

375

380

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
385 390 395 400

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
405 410 415

Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
420 425 430

Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly
450 455 460

Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
465 470 475 480

Thr Val Ser Ser

<210> 128

<211> 484

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 128

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

45375_705_601_SeqList

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ala Arg
50 55 60

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr
245 250 255

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile
260 265 270

Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
275 280 285

Lys Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp
290 295 300

Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser
305 310 315 320

Gly Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
325 330 335

Asp Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val
340 345 350

Leu Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
355 360 365

Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
370 375 380

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
385 390 395 400

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
405 410 415

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Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
420 425 430

Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly
450 455 460

Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
465 470 475 480

Thr Val Ser Ser

<210> 129

<211> 480

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 129

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser

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

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260

265

270

Val His Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Val
 275 280 285

Tyr Asp Asp Asn Glu Arg Pro Ser Gly Ile Pro Glu Arg Phe Ser Gly
 290 295 300

Ser Asn Ser Gly Ser Thr Ala Thr Leu Thr Ile Asn Arg Val Glu Ala
 305 310 315 320

Gly Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Ser Gly Ser Asp
 325 330 335

His Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Ser
 340 345 350

Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 355 360 365

Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe
 370 375 380

Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 385 390 395 400

Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr
 405 410 415

Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp Ser
 420 425 430

Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr
 435 440 445

Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val

45375_705_601_SeqList

450

455

460

Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
465 470 475 480

<210> 130

<211> 485

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 130

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

Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly Ser Asn
20 25 30

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

Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly Leu Gln
65 70 75 80

Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp Ser Leu
85 90 95

Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
100 105 110

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

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Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
130 135 140

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

Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr
165 170 175

Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp
180 185 190

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

Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr
210 215 220

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

Ser Gly Gly Ser Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser
245 250 255

Ser Leu Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ser
260 265 270

Ser Thr Gly Ala Val Thr Thr Ser Asn Tyr Ala Asn Trp Val Gln Gln
275 280 285

Lys Pro Gly Lys Ala Pro Lys Ala Leu Ile Gly Gly Thr Asn Lys Arg
290 295 300

Ala Pro Gly Val Pro Ser Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys
305 310 315 320

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Ala Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr
 325 330 335

Tyr Cys Ala Leu Trp Tyr Ser Asn Leu Trp Val Phe Gly Gln Gly Thr
 340 345 350

Lys Val Glu Ile Lys Gly Gly Ser Gly Gly Ser Gln Val Gln Leu Val
 355 360 365

Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser
 370 375 380

Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser Tyr Asp Ile Asn Trp Val
 385 390 395 400

Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly Trp Met Asn Pro
 405 410 415

Asn Ser Gly Asn Thr Gly Phe Ala Gln Lys Phe Gln Gly Arg Val Thr
 420 425 430

Met Thr Arg Asp Thr Ser Thr Ser Thr Val Tyr Met Glu Leu Ser Ser
 435 440 445

Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Ala
 450 455 460

Asn Thr Asp Phe Ser Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Leu
 465 470 475 480

Val Thr Val Ser Ser
 485

<210> 131
 <211> 483
 <212> PRT

45375_705_601_SeqList

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 131

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	Ser	Ser	Thr	Gly	Ala	Val	Thr	Thr
		20					25					30			

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

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

Phe	Ser	Gly	Ser	Leu	Ile	Gly	Asp	Lys	Ala	Thr	Leu	Thr	Ile	Ser	Ser
65				70				75						80	

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

Asn	Leu	Trp	Val	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Gly	Gly
		100						105					110		

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

Lys	Pro	Gly	Ala	Ser	Val	Lys	Val	Ser	Cys	Lys	Ala	Ser	Gly	Tyr	Thr
	130					135					140				

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

Leu	Glu	Trp	Met	Gly	Trp	Met	Asn	Pro	Asn	Ser	Gly	Asn	Thr	Gly	Phe
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

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165

170

175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Phe Ser Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly

45375_705_601_SeqList

355

360

365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 132

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 132

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

45375_705_601_SeqList

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

45375_705_601_SeqList

Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Arg	Ala	Asn	Thr	Asp	Tyr	Ser	Phe	Gly
210						215					220				
Met	Asp	Val	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Gly	Gly
225					230					235					240
Ser	Gly	Gln	Ser	Val	Leu	Thr	Gln	Pro	Pro	Ser	Ala	Ser	Gly	Thr	Pro
				245					250					255	
Gly	Gln	Arg	Val	Thr	Ile	Ser	Cys	Ser	Gly	Ser	Arg	Ser	Asn	Ile	Gly
			260					265					270		
Ser	Asn	Thr	Val	Asn	Trp	Tyr	Gln	Gln	Leu	Pro	Gly	Thr	Ala	Pro	Lys
		275					280					285			
Leu	Leu	Ile	Tyr	Gly	Asn	Asn	Gln	Arg	Pro	Ser	Gly	Val	Pro	Asp	Arg
	290					295					300				
Phe	Ser	Gly	Ser	Lys	Ser	Gly	Thr	Ser	Ala	Ser	Leu	Ala	Ile	Ser	Gly
305					310					315					320
Leu	Gln	Ser	Glu	Asp	Glu	Ala	Asp	Tyr	Tyr	Cys	Ala	Thr	Trp	Asp	Asp
			325						330					335	
Ser	Leu	Ile	Gly	Trp	Val	Phe	Gly	Gly	Gly	Thr	Lys	Leu	Thr	Val	Leu
			340					345					350		
Gly	Gly	Ser	Gly	Gly	Ser	Glu	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly
		355					360					365			
Leu	Val	Gln	Pro	Gly	Gly	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly
	370					375					380				
Phe	Thr	Phe	Ser	Thr	Tyr	Ala	Met	Asn	Trp	Val	Arg	Gln	Ala	Pro	Gly
385					390					395					400

45375_705_601_SeqList

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
 405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
 420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
 435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
 450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
 465 470 475 480

Val Ser Ser

<210> 133
 <211> 483
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<400> 133

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

Gly Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val Pro Ser Arg

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50

55

60

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro

45375_705_601_SeqList

245

250

255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr

45375_705_601_SeqList

435

440

445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
 450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
 465 470 475 480

Val Ser Ser

<210> 134

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 134

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
 65 70 75 80

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

45375_705_601_SeqList

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Val Thr Asp Tyr Tyr Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

45375_705_601_SeqList

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

45375_705_601_SeqList

Val Ser Ser

<210> 135
 <211> 483
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<400> 135

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

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

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr

45375_705_601_SeqList

130

135

140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Val Thr Asp Tyr Tyr Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp

45375_705_601_SeqList

325

330

335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 136

<211> 483

<212> PRT

<213> Artificial Sequence

45375_705_601_SeqList

<220>

<223> Synthetic polypeptide

<400> 136

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

45375_705_601_SeqList

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Phe Ser Tyr Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

45375_705_601_SeqList

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 137
<211> 483
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic polypeptide

<400> 137

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 Ser Ser Thr Gly Ala Val Thr Thr

45375_705_601_SeqList

20

25

30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
 65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
 130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
 165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
 180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
 195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Phe Gly

45375_705_601_SeqList

210

215

220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr

45375_705_601_SeqList

405

410

415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 138

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 138

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

45375_705_601_SeqList

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Trp Met Asn Pro Asn Ser Gly Asn Thr Gly Phe
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Arg Ala Asn Thr Asp Tyr Ser Leu Gly
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

45375_705_601_SeqList

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Arg Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Gly Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp Asp
325 330 335

Ser Leu Ile Gly Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

45375_705_601_SeqList

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 139

<211> 481

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 139

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly

45375_705_601_SeqList

100

105

110

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

Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly Tyr Ser
130 135 140

Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly Lys Gly
145 150 155 160

Leu Glu Trp Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr Arg Tyr
165 170 175

Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys Ser Ile
180 185 190

Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp Thr Ala
195 200 205

Met Tyr Tyr Cys Ala Arg His Lys Arg Gly Ser Asp Ala Phe Asp Ile
210 215 220

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Ser Gly Gln
225 230 235 240

Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala Pro Gly Gln Arg
245 250 255

Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile Gly Ala Gly Tyr
260 265 270

Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys Leu Leu
275 280 285

Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro Asp Arg Phe Ser

45375_705_601_SeqList

290

295

300

Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Thr Gly Leu Gln
305 310 315 320

Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser Ser Leu
325 330 335

Ser Asp Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly
340 345 350

Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
355 360 365

Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr
370 375 380

Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly
385 390 395 400

Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr
405 410 415

Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg Asp Asp
420 425 430

Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp
435 440 445

Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr
450 455 460

Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
465 470 475 480

Ser

45375_705_601_SeqList

<210> 140
 <211> 481
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<400> 140

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

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

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

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

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

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

Tyr Cys Ala Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Tyr Phe
 100 105 110

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

Gly Gly Ser Gln Ser Val Leu Thr Gln Pro Pro Ser Val Ser Gly Ala
 130 135 140

45375_705_601_SeqList

Pro Gly Gln Arg Val Thr Ile Ser Cys Thr Gly Ser Ser Ser Asn Ile
145 150 155 160

Gly Ala Gly Tyr Asp Val His Trp Tyr Gln Gln Leu Pro Gly Thr Ala
165 170 175

Pro Lys Leu Leu Ile Tyr Gly Asn Ser Asn Arg Pro Ser Gly Val Pro
180 185 190

Asp Arg Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile
195 200 205

Thr Gly Leu Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr
210 215 220

Asp Ser Ser Leu Ser Asp Val Val Phe Gly Gly Gly Thr Lys Leu Thr
225 230 235 240

Val Leu Gly Gly Ser Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
245 250 255

Val Lys Lys Pro Gly Glu Ser Leu Lys Ile Ser Cys Lys Gly Ser Gly
260 265 270

Tyr Ser Phe Thr Ser Tyr Trp Ile Gly Trp Val Arg Gln Met Pro Gly
275 280 285

Lys Gly Leu Glu Trp Met Gly Ile Ile Tyr Pro Gly Asp Ser Asp Thr
290 295 300

Arg Tyr Ser Pro Ser Phe Gln Gly Gln Val Thr Ile Ser Ala Asp Lys
305 310 315 320

Ser Ile Ser Thr Ala Tyr Leu Gln Trp Ser Ser Leu Lys Ala Ser Asp
325 330 335

45375_705_601_SeqList

Thr Ala Met Tyr Tyr Cys Ala Arg His Lys Arg Gly Ser Asp Ala Phe
340 345 350

Asp Ile Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Ser
355 360 365

Gly Gly Ser Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala
370 375 380

Ser Val Gly Asp Arg Val Thr Ile Thr Cys Arg Ser Ser Thr Gly Ala
385 390 395 400

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

Ala Pro Lys Ala Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Gly Val
420 425 430

Pro Ser Arg Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr
435 440 445

Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Ala Leu
450 455 460

Trp Tyr Ser Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile
465 470 475 480

Lys

<210> 141

<211> 484

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

45375_705_601_SeqList

<400> 141

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr

45375_705_601_SeqList

180

185

190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Val Val Pro Ala Ala Ile Asp Tyr Tyr
210 215 220

Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
225 230 235 240

Gly Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr
245 250 255

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile
260 265 270

Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
275 280 285

Lys Leu Leu Ile Tyr Ser Asp Asn Gln Arg Pro Ser Gly Val Pro Asp
290 295 300

Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser
305 310 315 320

Gly Leu Gln Ser Asp Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
325 330 335

Asp Ser Leu Asn Gly Ala Val Phe Gly Gly Gly Thr Lys Leu Thr Val
340 345 350

Leu Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
355 360 365

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

45375_705_601_SeqList

370

375

380

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
385 390 395 400

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
405 410 415

Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
420 425 430

Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly
450 455 460

Asn Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
465 470 475 480

Thr Val Ser Ser

<210> 142

<211> 484

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 142

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

45375_705_601_SeqList

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

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

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr
130 135 140

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

Leu Glu Trp Met Gly Ile Ile Asn Pro Ser Gly Gly Ser Thr Ser Tyr
165 170 175

Ala Gln Lys Phe Gln Gly Arg Val Thr Met Thr Arg Asp Thr Ser Thr
180 185 190

Ser Thr Val Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Asp Val Val Pro Ala Ala Ile Asp Tyr Tyr
210 215 220

45375_705_601_SeqList

Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly
225 230 235 240

Gly Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr
245 250 255

Pro Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile
260 265 270

Gly Ser Asn Thr Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro
275 280 285

Lys Leu Leu Ile Tyr Ser Asp Asn Gln Arg Pro Ser Gly Val Pro Asp
290 295 300

Arg Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser
305 310 315 320

Gly Leu Gln Ser Asp Asp Glu Ala Asp Tyr Tyr Cys Ala Thr Trp Asp
325 330 335

Asp Ser Leu Asn Gly Ala Val Phe Gly Gly Gly Thr Lys Leu Thr Val
340 345 350

Leu Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly
355 360 365

Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
370 375 380

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
385 390 395 400

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
405 410 415

45375_705_601_SeqList

Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser
420 425 430

Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
435 440 445

Thr Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly
450 455 460

Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
465 470 475 480

Thr Val Ser Ser

<210> 143

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 143

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser

45375_705_601_SeqList

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

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260

265

270

Ser Asn Ile Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
 275 280 285

Leu Leu Ile Tyr Ser Asn Asn Gln Arg Pro Ser Gly Val Pro Asp Arg
 290 295 300

Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
 305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
 325 330 335

Ser Leu Lys Gly Tyr Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
 340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
 370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
 385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
 405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
 420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
 435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn

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450

455

460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 144

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 144

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 Ser Ser Thr Gly Ala Val Thr Thr
20 25 30

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

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

Phe Ser Gly Ser Leu Ile Gly Asp Lys Ala Thr Leu Thr Ile Ser Ser
65 70 75 80

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
100 105 110

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

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
130 135 140

Phe Ser Ser Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly
145 150 155 160

Leu Glu Trp Met Gly Gly Ile Ile Pro Ile Phe Gly Ser Ala His Tyr
165 170 175

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

Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Glu Tyr Tyr Tyr Asp Ser Ser Glu Trp Ala
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
260 265 270

Ser Asn Thr Val Lys Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Ser Asn Asn Gln Arg Ser Ser Gly Val Pro Asp Arg
290 295 300

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Phe Ser Gly Ser Lys Ser Gly Thr Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
325 330 335

Ser Leu Asn Gly Tyr Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

45375_705_601_SeqList

<210> 145
 <211> 483
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Synthetic polypeptide

<400> 145

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 Ser Ser Thr Gly Ala Val Thr Thr
 20 25 30

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

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

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

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

Asn Leu Trp Val Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly
 100 105 110

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

Lys Pro Gly Ser Ser Val Lys Val Ser Cys Lys Ala Ser Gly Gly Thr
 130 135 140

Phe Ser Ser Tyr Gly Ile Ser Trp Val Arg Gln Ala Pro Gly Gln Gly

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

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340

345

350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
450 455 460

Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
465 470 475 480

Val Ser Ser

<210> 146

<211> 483

<212> PRT

<213> Artificial Sequence

<220>

<223> Synthetic polypeptide

<400> 146

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

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Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala
195 200 205

Val Tyr Tyr Cys Ala Arg Glu Tyr Tyr Tyr Asp Ser Ser Glu Trp Ala
210 215 220

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

Ser Gly Gln Ser Val Leu Thr Gln Pro Pro Ser Ala Ser Gly Thr Pro
245 250 255

Gly Gln Arg Val Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly
260 265 270

Asp Asn Val Val Asn Trp Tyr Gln Gln Leu Pro Gly Thr Ala Pro Lys
275 280 285

Leu Leu Ile Tyr Ser Thr Asn Lys Arg Pro Ser Gly Val Pro Asp Arg
290 295 300

Phe Ser Gly Ser Lys Ser Gly Ser Ser Ala Ser Leu Ala Ile Ser Gly
305 310 315 320

Leu Gln Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp
325 330 335

Ser Leu Ser Ala Tyr Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
340 345 350

Gly Gly Ser Gly Gly Ser Glu Val Gln Leu Val Glu Ser Gly Gly Gly
355 360 365

Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly
370 375 380

45375_705_601_SeqList

Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly
 385 390 395 400

Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr
 405 410 415

Ala Thr Tyr Tyr Ala Asp Ser Val Lys Asp Arg Phe Thr Ile Ser Arg
 420 425 430

Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr
 435 440 445

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg His Gly Asn Phe Gly Asn
 450 455 460

Ser Tyr Val Ser Tyr Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr
 465 470 475 480

Val Ser Ser