

SEQUENCE LISTING

<110> ATARGA, LLC

<120> ANTIBODY MOLECULES TO FGF23 AND USES THEREOF

<130> A2176-7002W0

<140>

<141>

<150> 62/826,199

<151> 2019-03-29

<160> 129

<170> PatentIn version 3.5

<210> 1

<211> 118

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 1

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

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

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

Met	Gly	Ile	Ile	Asn	Pro	Ile	Ser	Gly	Ser	Thr	Ser	Tyr	Ala	Gln	Lys
	50					55					60				

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

Tyr	Met	Asp	Leu	Ser	Arg	Leu	Thr	Ser	Asp	Asp	Thr	Ala	Val	Tyr	Tyr
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

85

90

95

Cys Ala Arg Asp Ile Val Asp Ala Phe Asp Phe Trp Gly Gln Gly Thr
 100 105 110

Thr Val Thr Val Ser Ser
 115

<210> 2
 <211> 118
 <212> PRT
 <213> Artificial Sequence

<220>
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 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 2
 Glu Val Gln Leu Leu Glu Gln Ser Gly Ala Glu Leu Lys Lys Pro Gly
 1 5 10 15

Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ser
 20 25 30

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

Met Gly Ile Ile Asn Pro Ile Ser Gly Ser Thr Thr Tyr Ala Gln Lys
 50 55 60

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

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

Cys Ala Arg Asp Ile Val Asp Ala Phe Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Val Thr Val Ser Ser
115

<210> 3
<211> 118
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 3
Glu Val Gln Leu Leu Glu Gln Ser Gly Ala Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

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

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

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

Cys Ala Arg Glu Ile Leu Asp Ala Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 4
<211> 118
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 4

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

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

His Phe Ile His Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp
35 40 45

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

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

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

Cys Ala Arg Glu Ile Leu Asp Ala Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

<210> 5

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 5

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

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn His
20 25 30

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 6

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 6

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

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn His
20 25 30

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

Gly Ile Ile Asn Pro Ile Ser Gly Ser Ser Ser Asn Ala Gln Lys Phe
50 55 60

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

Val Thr Val Ser Ser
115

<210> 7
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 7
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Arg Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn His
20 25 30

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

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

50 55 60
 Gln Gly Arg Val Thr Phe Thr Arg Asp Thr Ser Ala Asn Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Gly Leu Ile Pro Glu Asp Thr Ala Ile Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Ile Val Asp Ala Phe Asp Phe Trp Gly Gln Gly Thr Leu
 100 105 110
 Val Thr Val Ser Ser
 115

 <210> 8
 <211> 117
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

 <400> 8
 Gln Val Gln Leu Leu Glu Ser Gly Ala Val Leu Ala Arg Pro Gly Thr
 1 5 10 15
 Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn His
 20 25 30
 Tyr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Ile Ile Asn Pro Ile Thr Gly Ser Ser Ser Asn Ala Gln Lys Phe
 50 55 60
 Gln Gly Arg Val Thr Ile Thr Arg Asp Thr Ser Thr Ser Thr Val Phe
 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 Ile Val Asp Ala Phe Asp Phe Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 9
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 9
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Arg Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn His
20 25 30

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

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

Gln Gly Arg Val Thr Phe Thr Arg Asp Thr Ser Ala Asn Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Gly Leu Ile Pro Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

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

Val Thr Val Ser Ser
115

<210> 10
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

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

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

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

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

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

Val Thr Val Ser Ser
115

<210> 11
<211> 117

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 11
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Arg Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asn His
20 25 30

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

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

Gln Gly Arg Val Thr Phe Thr Arg Asp Thr Ser Ala Asn Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Gly Leu Ile Pro Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Asp Ile Val Asp Ala Phe Asp Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 12
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 12

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

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asn His
20 25 30

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

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

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

Val Thr Val Ser Ser
115

<210> 13

<211> 117

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 13

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

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Asn His

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

<210> 14
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 14															
Glu	Ile	Gln	Leu	Thr	Gln	Ser	Pro	Ala	Thr	Leu	Ser	Leu	Ser	Pro	Gly
1			5						10					15	

Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Ser	Ser	Ala
			20					25					30		

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Asn Asp Tyr Phe Thr
85 90 95

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

<210> 15

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 15

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

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

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

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

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

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

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

<210> 16
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 16
Glu Ile Gln Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly Ile Ser Ser Ala
20 25 30

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

Tyr Ala Ala Ser Asn Leu Glu Ser Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

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

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

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

<210> 17
<211> 106
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 17

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

Glu Arg Ala Thr Leu Ser Cys Lys Ala Ser Gln Gly Ile Ser Ser Ala
20 25 30

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Asn Asn Tyr Phe Thr
85 90 95

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

<210> 18

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 18

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly Ile Ser Ser Ala
20 25 30

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Asn Asp Tyr Phe Thr
85 90 95

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

<210> 19

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 19

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

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

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

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Glu Pro

<210> 21
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 21
Ala Ile Gln Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly Ile Ser Ser Ala
20 25 30

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Asn Asp Tyr Phe Thr
85 90 95

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

<210> 22
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 22

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

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly Ile Ser Ser Ala
 20 25 30

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

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

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
 65 70 75 80

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Asn Asp Tyr Phe Thr
 85 90 95

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

<210> 23
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 23
 Ala Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15

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

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

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

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

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

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

<210> 24
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 24
Ala Ile Gln Leu Thr Gln Ser Pro Ala Thr Leu Ser Val Ser Pro Gly
1 5 10 15

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Gly Ile Ser Ser Tyr
20 25 30

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

Tyr Asp Ala Ser Asn Leu Glu Ser Gly Ile Pro Ala Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Ser
65 70 75 80

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

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

<210> 25
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 25
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Phe Asn Asp Tyr Phe Thr
85 90 95

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

<210> 26
<211> 106
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 26

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

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

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

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

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

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

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

<210> 27

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 27

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

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Gly Ile Ser Ser Ala

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

<210> 28
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 28															
Asp	Ile	Gln	Leu	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5				10					15		

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

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

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

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

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

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

<210> 29

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 29

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

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

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

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

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

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

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

<210> 30
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 30
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 31
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 31

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

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

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

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

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

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

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

<210> 32

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 32

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

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

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

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

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

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

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

<210> 33

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 33

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

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

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

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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Phe Asn Asp Tyr Phe Ser

85

90

95

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

<210> 34

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 polypeptide"

<400> 34

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

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

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

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

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

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

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

<210> 35

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 35

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

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

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

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

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

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

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

<210> 36

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 36

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 Lys Ala Ser Gln Gly Ile Ser Ser Ala
20 25 30

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

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

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

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

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

<210> 37

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 37

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 Lys Ala Ser Gln Gly Ile Ser Ser Ala
20 25 30

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

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

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

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

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

<210> 38
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 38
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

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

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

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

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

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

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

<210> 39
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 39
Asn His Phe Ile His
1 5

<210> 40
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 40
Asn His Phe Met His
1 5

<210> 41
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 41
Asn His Tyr Met His
1 5

<210> 42
<211> 5
<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 42

Asn Tyr Tyr Met His

1 5

<210> 43

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 43

Ser His Tyr Met His

1 5

<210> 44

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 44

Ile Ile Asn Pro Ile Ser Gly Ser Ser Ser Asn Ala Gln Lys Phe Gln

1 5 10 15

Gly

<210> 45

<211> 17

<212> PRT

<213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 45
 Ile Ile Asn Pro Ile Ser Gly Ser Thr Ser Asn Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 46
 <211> 17
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 46
 Ile Ile Asn Pro Ile Ser Gly Ser Thr Ser Asn Ala Gln Lys Leu Gln
 1 5 10 15

Gly

<210> 47
 <211> 17
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <400> 47
 Ile Ile Asn Pro Ile Ser Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
 1 5 10 15

Gly

<210> 48
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 48
Ile Ile Asn Pro Ile Ser Gly Ser Thr Thr Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 49
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 49
Ile Ile Asn Pro Ile Thr Gly Ser Ser Ser Asn Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 50
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 50
Ile Ile Asn Pro Asn Ser Gly Ser Thr Ser Asn Ala Gln Lys Leu Gln
1 5 10 15

Gly

<210> 51
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 51
Thr Ile Asn Pro Val Ser Gly Ser Thr Asn Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 52
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 52
Thr Ile Asn Pro Val Ser Gly Ser Thr Ser Tyr Ala Gln Lys Phe Gln
1 5 10 15

Gly

<210> 53
<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 53
Asp Ile Val Asp Ala Phe Asp Phe
1 5

<210> 54
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 54
Asp Ile Val Asp Ala Phe Asp Tyr
1 5

<210> 55
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 55
Asp Leu Val Asp Ala Phe Asp Phe
1 5

<210> 56
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 56

Glu Ile Leu Asp Ala Phe Asp Tyr
1 5

<210> 57

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 57

Glu Ile Val Asp Ala Phe Asp Phe
1 5

<210> 58

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 58

Lys Ala Ser Gln Gly Ile Ser Ser Ala Leu Ala
1 5 10

<210> 59

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 59

Lys Ala Ser Gln Gly Ile Ser Ser Ala Leu Val

1 **5** **10**

<212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 peptide"

 <400> 63
 Arg Ala Ser Gln Gly Val Ser Ser Ala Leu Val
 1 5 10

<210> 64
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 peptide"

 <400> 64
 Ala Ala Ser Asn Leu Glu Ser
 1 5

<210> 65
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 peptide"

 <400> 65
 Ala Ala Ser Ser Leu Glu Ser
 1 5

<210> 66
 <211> 7
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 66

Asp Ala Ser Asn Leu Glu Ser
1 5

<210> 67

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 67

Asp Ala Ser Ser Leu Glu Ser
1 5

<210> 68

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 68

Asp Ala Ser Ser Leu Glu Thr
1 5

<210> 69

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 69

Asp Ala Ser Ser Leu Gln Ser

1

5

<210> 70

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 70

Asp Ala Ser Ser Leu Gln Thr

1

5

<210> 71

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 71

Asp Ala Ser Ser Arg Ala Thr

1

5

<210> 72

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 72

Lys Ala Ser Ser Leu Glu Ser

1

5

<210> 73

<211> 8

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 73
Gln Gln Phe Asn Asp Tyr Phe Ser
1 5

<210> 74
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 74
Gln Gln Phe Asn Asp Tyr Phe Thr
1 5

<210> 75
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 75
Gln Gln Phe Asn Asn Tyr Phe Thr
1 5

<210> 76
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 76

Gln Gln Phe Asn Ser Tyr Phe Thr
1 5

<210> 77

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 77

Gln Gln Phe Ser Asp Tyr Phe Thr
1 5

<210> 78

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 78

Gln Gln Tyr Asn Asp Tyr Phe Thr
1 5

<210> 79

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 79

Gln Gln Tyr Asn Ser Tyr Tyr Thr

1

5

<210> 80

<211> 330

<212> PRT

<213> Unknown

<220>

<221> source

<223> /note="Description of Unknown:
IgG1 sequence"

<400> 80

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

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

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

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

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

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

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

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

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
 145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
 165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
 180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 210 215 220

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

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 260 265 270

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

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

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
 325 330

<210> 81
 <211> 107

<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 81
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
1 5 10 15

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

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
35 40 45

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
50 55 60

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
65 70 75 80

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
85 90 95

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 82
<211> 251
<212> PRT
<213> Homo sapiens

<400> 82
Met Leu Gly Ala Arg Leu Arg Leu Trp Val Cys Ala Leu Cys Ser Val
1 5 10 15

Cys Ser Met Ser Val Leu Arg Ala Tyr Pro Asn Ala Ser Pro Leu Leu
20 25 30

Gly Ser Ser Trp Gly Gly Leu Ile His Leu Tyr Thr Ala Thr Ala Arg
35 40 45

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

Pro His Gln Thr Ile Tyr Ser Ala Leu Met Ile Arg Ser Glu Asp Ala
65 70 75 80

Gly Phe Val Val Ile Thr Gly Val Met Ser Arg Arg Tyr Leu Cys Met
85 90 95

Asp Phe Arg Gly Asn Ile Phe Gly Ser His Tyr Phe Asp Pro Glu Asn
100 105 110

Cys Arg Phe Gln His Gln Thr Leu Glu Asn Gly Tyr Asp Val Tyr His
115 120 125

Ser Pro Gln Tyr His Phe Leu Val Ser Leu Gly Arg Ala Lys Arg Ala
130 135 140

Phe Leu Pro Gly Met Asn Pro Pro Pro Tyr Ser Gln Phe Leu Ser Arg
145 150 155 160

Arg Asn Glu Ile Pro Leu Ile His Phe Asn Thr Pro Ile Pro Arg Arg
165 170 175

His Thr Arg Ser Ala Glu Asp Asp Ser Glu Arg Asp Pro Leu Asn Val
180 185 190

Leu Lys Pro Arg Ala Arg Met Thr Pro Ala Pro Ala Ser Cys Ser Gln
195 200 205

Glu Leu Pro Ser Ala Glu Asp Asn Ser Pro Met Ala Ser Asp Pro Leu
210 215 220

Gly Val Val Arg Gly Gly Arg Val Asn Thr His Ala Gly Gly Thr Gly

225

230

235

240

Pro Glu Gly Cys Arg Pro Phe Ala Lys Phe Ile
 245 250

<210> 83

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
 peptide"

<220>

<221> VARIANT

<222> (1)..(1)

<223> /replace="S" or "A"

<220>

<221> VARIANT

<222> (2)..(2)

<223> /replace="Y"

<220>

<221> VARIANT

<222> (3)..(3)

<223> /replace="Y"

<220>

<221> VARIANT

<222> (4)..(4)

<223> /replace="M"

<220>

<221> SITE

<222> (1)..(5)

<223> /note="Variant residues given in the sequence have no
 preference with respect to those in the annotations
 for variant positions"

<400> 83

Asn His Phe Ile His

1

5

<210> 84
 <211> 17
 <212> PRT
 <213> Artificial Sequence

 <220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic peptide"

 <220>
 <221> VARIANT
 <222> (1)..(1)
 <223> /replace="T"

 <220>
 <221> VARIANT
 <222> (5)..(5)
 <223> /replace="N" or "V"

 <220>
 <221> VARIANT
 <222> (6)..(6)
 <223> /replace="T"

 <220>
 <221> VARIANT
 <222> (9)..(9)
 <223> /replace="T"

 <220>
 <221> VARIANT
 <222> (10)..(10)
 <223> /replace="T" or "N"

 <220>
 <221> VARIANT
 <222> (11)..(11)
 <223> /replace="Y"

 <220>
 <221> VARIANT
 <222> (15)..(15)
 <223> /replace="L"

 <220>
 <221> SITE
 <222> (1)..(17)
 <223> /note="Variant residues given in the sequence have no

preference with respect to those in the annotations
for variant positions"

<400> 84

Ile	Ile	Asn	Pro	Ile	Ser	Gly	Ser	Ser	Ser	Asn	Ala	Gln	Lys	Phe	Gln
1				5				10						15	

Gly

<210> 85

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<220>

<221> VARIANT

<222> (1)..(1)

<223> /replace="E"

<220>

<221> VARIANT

<222> (2)..(2)

<223> /replace="I"

<220>

<221> VARIANT

<222> (3)..(3)

<223> /replace="L"

<220>

<221> VARIANT

<222> (8)..(8)

<223> /replace="Y"

<220>

<221> SITE

<222> (1)..(8)

<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 85
Asp Leu Val Asp Ala Phe Asp Phe
1 5

<210> 86
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<220>
<221> VARIANT
<222> (1)..(1)
<223> /replace="R"

<220>
<221> VARIANT
<222> (4)..(4)
<223> /replace="A"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="V"

<220>
<221> VARIANT
<222> (9)..(9)
<223> /replace="Y"

<220>
<221> VARIANT
<222> (11)..(11)
<223> /replace="V"

<220>
<221> SITE
<222> (1)..(11)
<223> /note="Variant residues given in the sequence have no
preference with respect to those in the annotations
for variant positions"

<400> 86
Lys Ala Ser Gln Gly Ile Ser Ser Ala Leu Ala

1

5

10

<210> 87
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<220>
<221> VARIANT
<222> (1)..(1)
<223> /replace="D" or "K"

<220>
<221> VARIANT
<222> (4)..(4)
<223> /replace="S"

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="R"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="Q" or "A"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="T"

<220>
<221> SITE
<222> (1)..(7)
<223> /note="Variant residues given in the sequence have no preference with respect to those in the annotations for variant positions"

<400> 87
Ala Ala Ser Asn Leu Glu Ser
1 5

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<210> 88
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
      peptide"

<220>
<221> VARIANT
<222> (3)..(3)
<223> /replace="Y"

<220>
<221> VARIANT
<222> (4)..(4)
<223> /replace="S"

<220>
<221> VARIANT
<222> (5)..(5)
<223> /replace="N" or "S"

<220>
<221> VARIANT
<222> (6)..(6)
<223> /replace="L"

<220>
<221> VARIANT
<222> (7)..(7)
<223> /replace="Y"

<220>
<221> VARIANT
<222> (8)..(8)
<223> /replace="T"

<220>
<221> SITE
<222> (1)..(8)
<223> /note="Variant residues given in the sequence have no
      preference with respect to those in the annotations
      for variant positions"

<400> 88

```

Gln Gln Phe Asn Asp Tyr Phe Ser
1 5

<210> 89
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
peptide"

<400> 89
Gln Gln Phe Asn Asp Leu Phe Thr
1 5

<210> 90
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 90
Gln Val Gln Leu Leu Glu Ser Gly Ala Val Leu Ala Arg Pro Gly Thr
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Ser Phe Thr Ala His
20 25 30

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

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

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

Val Thr Val Ser Ser
115

<210> 91
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 91
Glu Val Gln Leu Val Gln Ser Gly Ala Glu Val Arg Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Ala His
20 25 30

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

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

Gln Gly Arg Val Thr Phe Thr Arg Asp Thr Ser Ala Asn Thr Ala Tyr
65 70 75 80

Met Glu Leu Ser Gly Leu Ile Pro Glu Asp Thr Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Asp Ile Val Asp Ala Phe Asp Phe Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 92
<211> 106
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 92
Asp Ile Gln Leu Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Ala Gly Ile Ser Ser Ala
20 25 30

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

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

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

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

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

<210> 93
<211> 106
<212> PRT
<213> Artificial Sequence

<220>

<221> source
<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 93

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

Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Ala Gly Ile Ser Ser Ala
20 25 30

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

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

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

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

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

<210> 94

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 94

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

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

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

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

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

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

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

<210> 95

<211> 106

<212> PRT

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 95

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

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

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

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

Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr Ile Ser Ser Leu Gln Pro

<210> 97
 <211> 452
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 97
 tctagaggat cgaacccttc accatggaaa ctgacactct cctgctttgg gtcttgctgc 60
 tctgggtgcc tggttcaacc ggcgaagtgc aactgggtgca gtccgggtgcc gaggtccgca 120
 agcccggagc cagcgtgaaa gtgtcctgca aggcctccgg gtacaccttc accaatcact 180
 acatgcattg ggtcagacag gccccgggccc agggactgga gtggatgggc atcatcaacc 240
 caatttcggg gtcaacctcg aacgctcaaa agctgcaggg ccgcgtgacc ttactcggg 300
 acacctccgc aaacacagcg tacatggaac tgtccggact gattcccag gataccgcca 360
 tctactattg tgcccgggat atcgtggacg ccttcgactt ctggggacag ggaactctcg 420
 tgacggtgtc cagcgcgagc accaaggggc cc 452

<210> 98
 <211> 407
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 98
 tctagaggat cgaacccttc accatggaaa ctgatactct gcttctctgg gtcttgctgc 60
 tctgggtccc tggttcaact ggcgctatcc agatgaccca gtccccgtcg tcaactgtccg 120
 cctccgtggg tgatcgcgtg accatcacgt gtcgggccag ccagggaatc tcctccgcac 180
 tcgtgtggta tcagcagaag cctggaaaag ccccgaagct gctgatctac gacgcctcct 240
 ccctggaatc gggagtgcc tgcagattct ccggctctgg gagcgggacc gacttcacct 300
 tcacaattag cagcctgcag cccgaggaca tcgcgaccta ctactgcca caattcaacg 360

actacttttac cttcggaccc ggcaccaagc tcgagattaa gggatcc 407

<210> 99
 <211> 452
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 99
 tctagaggat cgaacccttc accatggaaa ctgacactct cttgctctgg gtactttctcc 60
 tctgggtccc tggttccacc ggccaagtgc agctgctgga atcgggagcg gtgctggccc 120
 ggccgggaac ttccgtgaag atcagctgca aagcatcagg gtacaccttc accaaccact 180
 acatgcattg ggtcaagcag aggcccggcc agggactgga gtggatcggc atcatcaacc 240
 caattaccgg cagctcctcc aacgtcaaa agttccaggg tcgctgacc attaccagag 300
 atacctccac ctgaccgtg ttcatggaac tgtcatccct gcggtccgag gacactgccg 360
 tgtattactg cgccgcgat atcgtggacg cttttgactt ctggggacag gggacgctgg 420
 tcacagtgtc gagcgccagc accaaggggc cc 452

<210> 100
 <211> 407
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 100
 tctagaggat cgaacccttc accatggaaa ctgacacatt gctgctttgg gtgttgctcc 60
 tttgggtccc cggttcaact ggcgctatcc agctgaccca gagcccgta tccctgtccg 120
 cctccgtggg agacagagtc accattactt gccgggcctc ccaagggatt tccagcgcgc 180
 tcgtgtggta tcagcagaaa ccgggacagg caccaggct gctgatctac gacgccagct 240

cgctggagag cggaatccct gcccgcctttt cggggtcggg ttctggcacc gatttcaccc	300
tgaccatctc ctccctggaa ccagaggatt tcgccgtgta ctactgcaa cagttcaacg	360
actacttcac gttcggccag ggaaccaagc tcgaaatcaa gggatcc	407

<210> 101
 <211> 452
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 101	
tctagaggat cgaacccttc accatggaaa ctgatacttt gtccttttgg gtcctcctgc	60
tttgggtgcc tggctcgacc ggagaagtgc aactggtgca gtccggagcc gaagtccgga	120
agcccggagc ctccgtgaaa gtgtcctgca aggcctcggg ctataccttc accaaccact	180
acatgcattg ggtccgcaa gcaccaggac agggcctgga gtggatgggt atcattaacc	240
cgatcagcgg gagcacttca aacgctcaga agctgcaggg cagagtgacc tttaccgcg	300
acaccagcgc caatacggcg tacatggaac tgtccgggct gatccccgag gacacagcga	360
tctactactg tgcccgggag attgtggatg ctttcgactt ctggggacag ggtaccctcg	420
tgaccgtgtc atccgcctcc actaaggggc cc	452

<210> 102
 <211> 407
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 102	
tctagaggat cgaacccttc accatggaaa ctgacacatt gctgctttgg gtgttgctcc	60
tttgggtccc cggttcaact ggcgctatcc agctgacca gagcccgtca tccctgtccg	120

cctccgtggg agacagagtc accattactt gccgggcctc ccaagggatt tccagcgcgc	180
tcgtgtggta tcagcagaaa ccgggacagg caccagggt gctgatctac gacgccagct	240
cgctggagag cggaatccct gcccgctttt cggggtcggg ttctggcacc gatttcaccc	300
tgaccatctc ctccctggaa ccagaggatt tcgccgtgta ctactgcaa cagttcaacg	360
actattcac gttcggccag ggaaccaagc tcgaaatcaa gggatcc	407

<210> 103
 <211> 452
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 103	
tctagaggat cgaacccttc accatggaaa ccgacacgct gtcctcttg gtccttcttc	60
tctgggtgcc tggttcaact ggagagggtgc agctgggtgca gtccggcgca gaagtccgga	120
agcccggcgc cagcgtgaaa gtgtcctgca aggcctccgg gtactcattc accaaccatt	180
acatgcactg ggtccgcaa gcgccgggac aagggttgga gtggatggga atcattaacc	240
caaacagcgg ttccacctcg aacgcccaga agctgcaggg cagagtgacc ttactcgcg	300
acacctccgc taataccgcc tacatggaat tgtcgggcct gattcccgag gataccgcga	360
tctactactg tgcccgggac atcgtggatg cttttgacta ttggggacag ggaactctgg	420
tcaccgtgtc gagcgctcc actaaggggc cc	452

<210> 104
 <211> 407
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 104
tctagaggat cgaacccttc accatggaaa ctgatactct gcttctctgg gtcttgctgc 60
tctgggtccc tggttcaact ggcgctatcc agatgaccca gtccccgtcg tcaactgtccg 120
cctccgtggg tgatcgcgtg accatcacgt gtcgggccag ccagggaatc tcctccgcac 180
tcgtgtggta tcagcagaag cctggaaaag ccccgaaagt gctgatctac gacgcctcct 240
ccctggaatc gggagtgcc tcgagattct ccggctctgg gagcgggacc gacttcacct 300
tcacaattag cagcctgcag cccgaggaca tcgcgaccta ctactgcaa caattcaacg 360
actactttac cttcggaacc ggcaccaagc tcgagattaa gggatcc 407

<210> 105
<211> 452
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polynucleotide"

<400> 105
tctagaggat cgaacccttc accatggaaa ctgacactct cctgctttgg gtcttgctgc 60
tctgggtgcc tggttcaacc ggcgaagtgc aactgggtgca gtccgggtgcc gaggtccgca 120
agcccggagc cagcgtgaaa gtgtcctgca aggccctcgg gtacaccttc accaatcact 180
acatgcattg ggtcagacag gccccgggcc agggactgga gtggatgggc atcatcaacc 240
caatttcggg gtcaacctcg aacgctcaaa agctgcaggg ccgcgtgacc ttactcggg 300
acacctccgc aaacacagcg tacatggaac tgtccggact gattcccag gataccgcca 360
tctactattg tgcccgggat atcgtggacg ccttcgactt ctggggacag ggaactctcg 420
tgacggtgtc cagcgcgagc accaaggggc cc 452

<210> 106
<211> 407
<212> DNA
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 106

tctagaggat cgaacccttc accatggaaa ctgatacttt gctgctctgg gtgcttctgc	60
tttgggtccc tggctcgacc ggcgacatcc agctgaccca gtcgccgtca tctctgtccg	120
cctccgtggg cgatagagtc actatcacgt gtcgcgcaag ccagggaatt agctccgccc	180
tcgtgtggta tcagcagaag cccgggcagg cccctaggct gctgatctac gacgcgtcca	240
gcctgcaatc cggaatccca gcccggttct ccggttccgg atcggaacc gactttaccc	300
tgaccatctc aagcctggaa cccgaggact tcgctgtgta ctactgccag caattcaacg	360
acctcttcac cttcgggcag ggtactaagc tcgagattaa gggatcc	407

<210> 107

<211> 452

<212> DNA

<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 107

tctagaggat cgaacccttc accatggaaa ccgatactct gctcctctgg gtcttctctgc	60
tctgggtccc cggttcgact ggccaagtgc agctgctgga gtcaggggcc gtgctggccc	120
gccctgggac cagcgtgaag atcagctgca aggcctctgg atactccttt accaaccact	180
acatgcattg ggtcaagcag aggccgggcc agggctttga gtggatcgga attatcaacc	240
caatcaccgg ctctgtccagc aacgcacaaa agttccaggg cagagtgcg atcaccggg	300
acacctcgac ctccaccgtg ttcattggaac tgagctccct gcggtccgag gatactgccg	360
tgtattactg tgcccgcgac ctggtggacg ctttcgactt ctggggacag ggaacactcg	420
tgactgtgtc ctccgcgtca accaaagggc cc	452

<210> 108

<211> 407

<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 108
tctagaggat cgaacccttc accatggaaa ctgatacttt gctgctctgg gtgcttctgc 60
tttgggtccc tggctcgacc ggcgacatcc agctgaccca gtcgccgtca tctctgtccg 120
cctccgtggg cgatagagtc actatcacgt gtcgcgcaag ccagggaatt agctccgccc 180
tcgtgtggta tcagcagaag cccgggcagg cccctaggct gctgatctac gacgcgtcca 240
gcctgcaatc cggaatccca gcccggttct ccggttcggg atcgggaacc gactttaccc 300
tgaccatctc aagcctggaa cccgaggact tcgctgtgta ctactgccag caattcaacg 360
actacttcac cttcgggcag ggtactaagc tcgagattaa gggatcc 407

<210> 109
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 109
Arg Ala Ser Ala Gly Ile Ser Ser Ala Leu Val
1 5 10

<210> 110
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic peptide"

<400> 110

Ala His Tyr Met His
1 5

<210> 111
<211> 452
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 111
tctagaggat cgaacccttc accatggaaa ccgacacttt gtcctcttgg gtcctcttgc 60
tttgggtgcc tggctcgact ggacaagtgc agctgggtgca gtccggggcc gaactgaaga 120
agccaggcgc ctcggtcaaa gtgtcctgca aagccagcgg atacaccttc accaaccatt 180
acatgcactg ggtcagacag gccccgggac aggggtctgga gtggatgggt atcatcaacc 240
ccatttccgg ctccaccacc tacgcgcaaa agtttcaggg ccgcgtgaca atgactcggg 300
atacctccag ctccaccgct tatatggacc tgctgaggct gacgagcgac gatactgccg 360
tgtactactg tgcccgggac atcgtggacg cgttcgattt ctggggacag gggactaccg 420
tgaccgtgtc atcagcatcc accaaggggc cc 452

<210> 112
<211> 407
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 112
tctagaggat cgaacccttc accatggaaa ctgacacatt gctgctttgg gtgttgctcc 60
tttgggtccc cggttcaact ggcgctatcc agctgaccca gagcccggtca tccctgtccg 120
cctccgtggg agacagagtc accattactt gccgggcctc ccaagggatt tccagcgcgc 180
tcgtgtggta tcagcagaaa ccgggacagg caccaggct gctgatctac gacgccagct 240

cgctggagag cggaatccct gcccgcctttt cggggtcggg ttctggcacc gatttcaccc	300
tgaccatctc ctccctggaa ccagaggatt tcgccgtgta ctactgcaa cagttcaacg	360
actacttcac gttcggccag ggaaccaagc tcgaaatcaa gggatcc	407

<210> 113
 <211> 351
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 113	
gaagtgcagc tgggtgcagag cggcgcggaa gtgcgcaaac cgggcgcgag cgtgaaagtg	60
agctgcaaag cgagcggcta tacctttacc aaccattata tgcattgggt gcgccaggcg	120
ccgggccagg gcctggaatg gatgggcatt attaaccga ttagcggcag caccagcaac	180
gcgcagaaac tgcagggccg cgtgaccttt accgcgata ccagcgcgaa caccgcgtat	240
atggaactga gcggcctgat tccggaagat accgcgattt attattgcgc gcgcgatatt	300
gtggatgcgt ttgatttttg gggccagggc accctggtga ccgtgagcag c	351

<210> 114
 <211> 318
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 114	
gatattcaga tgaccagag cccgagcagc ctgagcgcga gcgtgggcga tcgcgtgacc	60
attacctgca aagcgagcca gggcattagc agcgcgctgg tgtggtatca gcagaaaccg	120
ggcaaagcgc cgaaactgct gatttatgat gcgagcagcc tgacagaccg cgtgccgagc	180
cgcttttagcg gcagcggcag cggcaccgat ttaccttta ccattagcag cctgcagccg	240

gaagatattg cgacctatta ttgccagcag tttaacgatt attttagctt tggcccgggc 300
 accaaactgg aaattaaa 318

<210> 115
 <211> 351
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 115
 gaagtgcagc tgggtgcagag cggcgcggaa gtgcgcaaac cgggcgcgag cgtgaaagtg 60
 agctgcaaag cgagcggcta tacctttacc aaccattata tgcattgggt gcgccaggcg 120
 ccgggccagg gcctggaatg gatgggcatt attaaccga ttagcggcag caccagcaac 180
 gcgcagaaac tgcagggccg cgtgaccttt acccgcgata ccagcgcgaa caccgcgtat 240
 atggaactga gcggcctgat tccggaagat accgcgattt attattgcgc gcgcgatatt 300
 gtggatgcgt ttgatttttg gggccagggc accctggtga ccgtgagcag c 351

<210> 116
 <211> 318
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 116
 gatattcaga tgacctcagag cccgagcagc ctgagcgcga gcgtgggcga tcgcgtgacc 60
 attacctgca aagcgagcca gggcattagc agcgcgctgg tgttggtatca gcagaaaccg 120
 ggcaaagcgc cgaaactgct gatttatgat gcgagcagcc tggaaccgg cgtgccgagc 180
 cgcttttagcg gcagcggcag cggcaccgat ttaccttta ccattagcag cctgcagccg 240
 gaagatattg cgacctatta ttgccagcag tttaacgatt attttagctt tggcccgggc 300

accaaactgg aaattaaa 318

<210> 117
<211> 351
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 117
gaagtgcagc tggcgcagag cggcgcggaa gtgcgcaaac cgggcgcgag cgtgaaagtg 60
agctgcaaag cgagcggcta tacctttacc aaccattata tgcattgggt gcgccaggcg 120
ccgggccagg gcctggaatg gatgggcatt attaaccga ttagcggcag caccagcaac 180
gcgcagaaac tgcagggccg cgtgaccttt acccgcgata ccagcgcgaa caccgcgtat 240
atggaactga gcggcctgat tccggaagat accgcgattt attattgcgc gcgcgatatt 300
gtggatgcgt ttgatttttg gggccagggc accctgggtga ccgtgagcag c 351

<210> 118
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 118
gatattcaga tgacccagag cccgagcagc ctgagcgcga gcgtgggcga tcgcgtgacc 60
attacctgca aagcgagcca gggcattagc agcgcgctgg tgtggtatca gcagaaaccg 120
ggcaaagcgc cgaaactgct gatttatgat gcgagcagcc tgcagagcgg cgtgccgagc 180
cgcttttagcg gcagcggcag cggcaccgat ttaccttta ccattagcag cctgcagccg 240
gaagatattg cgacctatta ttgccagcag tttaacgatt attttagctt tggcccgggc 300
accaaactgg aaattaaa 318

<210> 119
 <211> 351
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 119
 gaagtgcagc tggcgcagag cggcgcggaa gtgcgcaaac cgggcgcgag cgtgaaagtg 60
 agctgcaaag cgagcggcta tacctttacc aaccattata tgcattgggt gcgccaggcg 120
 ccgggccagg gcctggaatg gatgggcatt attaaccga ttagcggcag caccagcaac 180
 gcgcagaaac tgcagggccg cgtgaccttt accgcgata ccagcgcgaa caccgcgtat 240
 atggaactga gcggcctgat tccggaagat accgcgattt attattgcgc gcgcgatatt 300
 gtggatgcgt ttgatttttg gggccagggc accctggtga ccgtgagcag c 351

<210> 120
 <211> 318
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic
 polynucleotide"

<400> 120
 gatattcaga tgacccagag cccgagcagc ctgagcgcga gcgtgggcga tcgcgtgacc 60
 attacctgca aagcgagcca gggcattagc agcgcgctgg tgtggtatca gcagaaaccg 120
 ggcaaagcgc cgaaactgct gatattatgat gcgagcagcc tgcagaccgg cgtgccgagc 180
 cgcttttagcg gcagcggcag cggcaccgat ttaccttta ccattagcag cctgcagccg 240
 gaagatattg cgacctatta ttgccagcag tttaacgatt attttacctt tggcccgggc 300
 accaaactgg aaattaaa 318

<210> 121
 <211> 351
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 121
 gaagtgcagc tgggtgcagag cggcgcggaa gtgcgcaaac cgggcgcgag cgtgaaagtg 60
 agctgcaaag cgagcggcta tacctttacc aaccattata tgcattgggt gcgccaggcg 120
 ccgggccagg gcctggaatg gatgggcatt attaaccga ttagcggcag caccagcaac 180
 gcgcagaaac tgcagggccg cgtgacctt acccgcgata ccagcgcgaa caccgcgtat 240
 atggaactga gcggcctgat tccggaagat accgcgattt attattgcgc gcgcgatatt 300
 gtggatgcgt ttgatttttg gggccagggc accctggtga ccgtgagcag c 351

<210> 122
 <211> 318
 <212> DNA
 <213> Artificial Sequence

<220>
 <221> source
 <223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 122
 gatattcaga tgacccagag cccgagcagc ctgagcgcga gcgtgggcga tcgcgtgacc 60
 attacctgcc gcgcgagcca gggcattagc agcgcgctgg tgtggtatca gcagaaaccg 120
 ggcaaagcgc cgaaactgct gatttatgat gcgagcagcc tgcagaccgg cgtgccgagc 180
 cgcttttagcg gcagcggcag cggcaccgat tttaccttta ccattagcag cctgcagccg 240
 gaagatattg cgacctatta ttgccagcag tttaacgatt attttagctt tggcccgggc 300
 accaaactgg aaattaaa 318

<210> 123
 <211> 351

<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 123
gaagtgcagc tggatgcagag cggcgcgga gtgcgcaaac cgggcgcgag cgtgaaagtg 60
agctgcaaag cgagcggcta tacctttacc aaccattata tgcattgggt gcgccaggcg 120
ccgggccagg gcctggaatg gatgggcatt attaaccga ttagcggcag caccagcaac 180
gcgcagaaac tgcagggccg cgtgacctt accgcgata ccagcgcaa caccgcgtat 240
atggaactga gcggcctgat tccggaagat accgcgattt attattgcgc gcgcgatatt 300
gtggatgcgt ttgatttttg gggccagggc accctggtga ccgtgagcag c 351

<210> 124
<211> 318
<212> DNA
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic polynucleotide"

<400> 124
gcgattcaga tgaccagag cccgagcagc ctgagcgca gcgtgggcga tcgcgtgacc 60
attacctgca aagcgagcca gggcattagc agcgcgtgg tgtggtatca gcagaaaccg 120
ggcaaagcgc cgaaactgct gatttatgat gcgagcagcc tgcagaccgg cgtgccgagc 180
cgcttttagcg gcagcggcag cggcaccgat ttaccttta ccattagcag cctgcagccg 240
gaagatattg cgacctatta ttgccagcag tttaacgatt attttagctt tggcccgggc 300
accaaactgg aaattaaa 318

<210> 125
<211> 330
<212> PRT
<213> Artificial Sequence

<220>

<221> source

<223> /note="Description of Artificial Sequence: Synthetic polypeptide"

<400> 125

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

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

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

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

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

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

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
180 185 190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
210 215 220

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

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

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

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

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
325 330

<210> 126
<211> 326
<212> PRT
<213> Unknown

<220>
<221> source
<223> /note="Description of Unknown:
IgG4 sequence"

<400> 126

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

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

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

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

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

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
100 105 110

Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125

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

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

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

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
180 185 190

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

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

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

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

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

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
275 280 285

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

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

Leu Ser Leu Ser Leu Gly
325

<210> 127
<211> 326
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 127
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

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

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr
65 70 75 80

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

Arg Val Glu Ser Lys Tyr Gly Pro Pro Cys Pro Pro Cys Pro Ala Pro
100 105 110

Glu Phe Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
115 120 125

Asp Thr Leu Tyr Ile Thr Arg Glu Pro Glu Val Thr Cys Val Val Val
130 135 140

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

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

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
180 185 190

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

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

210		215		220
Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys				
225		230		235
Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp				
	245		250	255
Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys				
	260		265	270
Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser				
	275		280	285
Arg Leu Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser				
	290		295	300
Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser				
305		310		315
Leu Ser Leu Ser Leu Gly				
	325			

<210> 128
 <211> 326
 <212> PRT
 <213> Unknown

<220>
 <221> source
 <223> /note="Description of Unknown:
 IgG2/4 sequence"

<400> 128
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
 1 5 10 15

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Ser Leu Ser Leu Gly Lys
325

<210> 129
<211> 326
<212> PRT
<213> Artificial Sequence

<220>
<221> source
<223> /note="Description of Artificial Sequence: Synthetic
polypeptide"

<400> 129
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg
1 5 10 15

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

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

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser

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

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

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

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

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

Ser Leu Ser Leu Gly Lys
325