

SEQUENCE LISTING

<110> UNIVERSITY HEALTH NETWORK

<120> T CELL RECEPTORS AND METHODS OF USE THEREOF

<130> 4285.005PC01/C-K/BMD

<150> US 62/813,647

<151> 2019-03-04

<160> 194

<170> PatentIn version 3.5

<210> 1

<211> 276

<212> PRT

<213> Artificial Sequence

<220>

<223> alpha chain amino acid sequence

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Met Lys Lys His Leu Thr Thr Phe Leu Val Ile Leu Trp Leu Tyr Phe
1 5 10 15

Tyr Arg Gly Asn Gly Lys Asn Gln Val Glu Gln Ser Pro Gln Ser Leu
20 25 30

Ile Ile Leu Glu Gly Lys Asn Cys Thr Leu Gln Cys Asn Tyr Thr Val
35 40 45

Ser Pro Phe Ser Asn Leu Arg Trp Tyr Lys Gln Asp Thr Gly Arg Gly
50 55 60

Pro Val Ser Leu Thr Ile Met Thr Phe Ser Glu Asn Thr Lys Ser Asn
65 70 75 80

Gly Arg Tyr Thr Ala Thr Leu Asp Ala Asp Thr Lys Gln Ser Ser Leu
85 90 95

His Ile Thr Ala Ser Gln Leu Ser Asp Ser Ala Ser Tyr Ile Cys Val
100 105 110

Val Arg Gly Met Asp Ser Ser Tyr Lys Leu Ile Phe Gly Ser Gly Thr

115

120

125

Arg Leu Leu Val Arg Pro Asp Ile Gln Asn Pro Asp Pro Ala Val Tyr
 130 135 140

Gln Leu Arg Asp Ser Lys Ser Ser Asp Lys Ser Val Cys Leu Phe Thr
 145 150 155 160

Asp Phe Asp Ser Gln Thr Asn Val Ser Gln Ser Lys Asp Ser Asp Val
 165 170 175

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

Ser Asn Ser Ala Val Ala Trp Ser Asn Lys Ser Asp Phe Ala Cys Ala
 195 200 205

Asn Ala Phe Asn Asn Ser Ile Ile Pro Glu Asp Thr Phe Phe Pro Ser
 210 215 220

Pro Glu Ser Ser Cys Asp Val Lys Leu Val Glu Lys Ser Phe Glu Thr
 225 230 235 240

Asp Thr Asn Leu Asn Phe Gln Asn Leu Ser Val Ile Gly Phe Arg Ile
 245 250 255

Leu Leu Leu Lys Val Ala Gly Phe Asn Leu Leu Met Thr Leu Arg Leu
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Trp Ser Ser Glx
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<223> beta chain amino acid sequence

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Gly Pro Gly Leu Leu His Trp Met Ala Leu Cys Leu Leu Gly Thr Gly

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His Gly Asp Ala Met Val Ile Gln Asn Pro Arg Tyr Gln Val Thr Gln	20	25	30
Phe Gly Lys Pro Val Thr Leu Ser Cys Ser Gln Thr Leu Asn His Asn	35	40	45
Val Met Tyr Trp Tyr Gln Gln Lys Ser Ser Gln Ala Pro Lys Leu Leu	50	55	60
Phe His Tyr Tyr Asp Lys Asp Phe Asn Asn Glu Ala Asp Thr Pro Asp	65	70	75
Asn Phe Gln Ser Arg Arg Pro Asn Thr Ser Phe Cys Phe Leu Asp Ile	85	90	95
Arg Ser Pro Gly Leu Gly Asp Ala Ala Met Tyr Leu Cys Ala Thr Ser	100	105	110
Ser Glu Asp Ser Ser Asn Gln Pro Gln His Phe Gly Asp Gly Thr Arg	115	120	125
Leu Ser Ile Leu Glu Asp Leu Asn Lys Val Phe Pro Pro Glu Val Ala	130	135	140
Val Phe Glu Pro Ser Glu Ala Glu Ile Ser His Thr Gln Lys Ala Thr	145	150	155
Leu Val Cys Leu Ala Thr Gly Phe Phe Pro Asp His Val Glu Leu Ser	165	170	175
Trp Trp Val Asn Gly Lys Glu Val His Ser Gly Val Ser Thr Asp Pro	180	185	190
Gln Pro Leu Lys Glu Gln Pro Ala Leu Asn Asp Ser Arg Tyr Cys Leu	195	200	205
Ser Ser Arg Leu Arg Val Ser Ala Thr Phe Trp Gln Asn Pro Arg Asn	210	215	220

His Phe Arg Cys Gln Val Gln Phe Tyr Gly Leu Ser Glu Asn Asp Glu
225 230 235 240

Trp Thr Gln Asp Arg Ala Lys Pro Val Thr Gln Ile Val Ser Ala Glu
245 250 255

Ala Trp Gly Arg Ala Asp Cys Gly Phe Thr Ser Val Ser Tyr Gln Gln
260 265 270

Gly Val Leu Ser Ala Thr Ile Leu Tyr Glu Ile Leu Leu Gly Lys Ala
275 280 285

Thr Leu Tyr Ala Val Leu Val Ser Ala Leu Val Leu Met Ala Met Val
290 295 300

Lys Arg Lys Asp Phe Glx
305 310

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<223> alpha CDR1

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Val Ser Pro Phe Ser Asn
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<223> alpha CDR2

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Leu Asn His Asn Val

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<223> alpha CDR3

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Cys Val Val Arg Gly Met Asp Ser Ser Tyr Lys Leu Ile Phe

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<211> 7

<212> PRT

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<223> beta CDR1

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Met Thr Phe Ser Glu Asn Thr

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<210> 9

<211> 6

<212> PRT

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<223> beta CDR2

<400> 9

Tyr Tyr Asp Lys Asp Phe

1 5

<210> 10

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<223> beta CDR3

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

His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser
35 40 45

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

Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp
65 70 75 80

Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp
85 90 95

Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile
100 105 110

Val Lys Trp Asp Arg Asp Met
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ggcaaaaacc aagtggagca gagtccctcag tccctgatca tcctggaggg aaagaactgc 120
actcttcaat gcaattatac agtgagcccc ttcagcaact taaggtggta taagcaagat 180
actgggagag gtcctgtttc cctgacaatc atgactttca gtgagaacac aaagtcgaac 240
ggaagatata cagcaactct ggatgcagac acaaagcaaa gctctctgca catcacagcc 300
tcccagctca gcgattcagc ctcctacatc tgtgtggtga gggggatgga tagcagctat 360

aaattgatct tcgggagtgg gaccagactg ctggtcaggc ctgatatcca gaaccctgac	420
cctgccgtgt accagctgag agactctaaa tccagtgaca agtctgtctg cctattcacc	480
gatttttgatt ctcaaacaaa tgtgtcacaa agtaaggatt ctgatgtgta tatcacagac	540
aaaactgtgc tagacatgag gtctatggac ttcaagagca acagtgtctgt ggcctggagc	600
aacaaatctg actttgcatg tgcaaacgcc ttcaacaaca gcattattcc agaagacacc	660
ttcttcccca gccagaaaag ttcctgtgat gtcaagctgg tcgagaaaag ctttgaaaca	720
gatacgaacc taaactttca aaacctgtca gtgattgggt tccgaatcct cctcctgaaa	780
gtggccgggt ttaatctgct catgacgctg cggctgtggt ccagctga	828

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gccatgggtca tccagaaccc aagataccag gttaccaggt ttggaaagcc agtgaccctg	120
agttgttctc agactttgaa ccataacgtc atgtactggt accagcagaa gtcaagtcag	180
gccccaaagc tgctgttcca ctactatgac aaagatttta acaatgaagc agacaccctt	240
gataacttcc aatccaggag gccgaacact tctttctgct ttcttgacat ccgctcacca	300
ggcctggggg acgcagccat gtacctgtgt gccaccagca gtgaggacag tagcaatcag	360
ccccagcatt ttggtgatgg gactcgactc tccatcctag aggacctgaa caaggtgttc	420
ccacccgagg tcgctgtggt tgagccatca gaagcagaga tctcccacac caaaaggcc	480
acactgggtgt gcctggccac aggcttcttc cctgaccacg tggagctgag ctggtgggtg	540
aatgggaagg aggtgcacag tggggtcagc acggaccgc agcccctcaa ggagcagccc	600
gccctcaatg actccagata ctgcctgagc agccgcctga gggctctggc caccttctgg	660
cagaaccccc gcaaccactt ccgctgtcaa gtccagttct acgggctctc ggagaatgac	720
gagtggaacc aggatagggc caaacccgtc acccagatcg tcagcgccga ggcctgggggt	780
agagcagact gtggctttac ctcggtgtcc taccagcaag gggtcctgtc tgccaccatc	840

ctctatgaga tcctgctagg gaaggccacc ctgtatgctg tgctggtcag cgcccttgtg	900
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<213> Artificial Sequence

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<223> Synthetic Peptide

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Met Asp Leu Val Leu Lys Arg Cys Leu Leu His Leu Ala Val Ile Gly
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Ala Leu Leu Ala Val Gly Ala Thr Lys Val Pro Arg Asn Gln Asp Trp
20 25 30

Leu Gly Val Ser Arg Gln Leu Arg Thr Lys Ala Trp Asn Arg Gln Leu
35 40 45

Tyr Pro Glu Trp Thr Glu Ala Gln Arg Leu Asp Cys Trp Arg Gly Gly
50 55 60

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

Asn Ala Ser Phe Ser Ile Ala Leu Asn Phe Pro Gly Ser Gln Lys Val
85 90 95

Leu Pro Asp Gly Gln Val Ile Trp Val Asn Asn Thr Ile Ile Asn Gly
100 105 110

Ser Gln Val Trp Gly Gly Gln Pro Val Tyr Pro Gln Glu Thr Asp Asp
115 120 125

Ala Cys Ile Phe Pro Asp Gly Gly Pro Cys Pro Ser Gly Ser Trp Ser
130 135 140

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

Gln Val Leu Gly Gly Pro Val Ser Gly Leu Ser Ile Gly Thr Gly Arg
165 170 175

Ala Met Leu Gly Thr His Thr Met Glu Val Thr Val Tyr His Arg Arg
180 185 190

Gly Ser Arg Ser Tyr Val Pro Leu Ala His Ser Ser Ser Ala Phe Thr
195 200 205

Ile Thr Asp Gln Val Pro Phe Ser Val Ser Val Ser Gln Leu Arg Ala
210 215 220

Leu Asp Gly Gly Asn Lys His Phe Leu Arg Asn Gln Pro Leu Thr Phe
225 230 235 240

Ala Leu Gln Leu His Asp Pro Ser Gly Tyr Leu Ala Glu Ala Asp Leu
245 250 255

Ser Tyr Thr Trp Asp Phe Gly Asp Ser Ser Gly Thr Leu Ile Ser Arg
260 265 270

Ala Leu Val Val Thr His Thr Tyr Leu Glu Pro Gly Pro Val Thr Ala
275 280 285

Gln Val Val Leu Gln Ala Ala Ile Pro Leu Thr Ser Cys Gly Ser Ser
290 295 300

Pro Val Pro Gly Thr Thr Asp Gly His Arg Pro Thr Ala Glu Ala Pro
305 310 315 320

Asn Thr Thr Ala Gly Gln Val Pro Thr Thr Glu Val Val Gly Thr Thr
325 330 335

Pro Gly Gln Ala Pro Thr Ala Glu Pro Ser Gly Thr Thr Ser Val Gln
340 345 350

Val Pro Thr Thr Glu Val Ile Ser Thr Ala Pro Val Gln Met Pro Thr
355 360 365

Ala Glu Ser Thr Gly Met Thr Pro Glu Lys Val Pro Val Ser Glu Val
370 375 380

Met Gly Thr Thr Leu Ala Glu Met Ser Thr Pro Glu Ala Thr Gly Met
385 390 395 400

Thr Pro Ala Glu Val Ser Ile Val Val Leu Ser Gly Thr Thr Ala Ala
405 410 415

Gln Val Thr Thr Thr Glu Trp Val Glu Thr Thr Ala Arg Glu Leu Pro
420 425 430

Ile Pro Glu Pro Glu Gly Pro Asp Ala Ser Ser Ile Met Ser Thr Glu
435 440 445

Ser Ile Thr Gly Ser Leu Gly Pro Leu Leu Asp Gly Thr Ala Thr Leu
450 455 460

Arg Leu Val Lys Arg Gln Val Pro Leu Asp Cys Val Leu Tyr Arg Tyr
465 470 475 480

Gly Ser Phe Ser Val Thr Leu Asp Ile Val Gln Gly Ile Glu Ser Ala
485 490 495

Glu Ile Leu Gln Ala Val Pro Ser Gly Glu Gly Asp Ala Phe Glu Leu
500 505 510

Thr Val Ser Cys Gln Gly Gly Leu Pro Lys Glu Ala Cys Met Glu Ile
515 520 525

Ser Ser Pro Gly Cys Gln Pro Pro Ala Gln Arg Leu Cys Gln Pro Val
530 535 540

Leu Pro Ser Pro Ala Cys Gln Leu Val Leu His Gln Ile Leu Lys Gly
545 550 555 560

Gly Ser Gly Thr Tyr Cys Leu Asn Val Ser Leu Ala Asp Thr Asn Ser
565 570 575

Leu Ala Val Val Ser Thr Gln Leu Ile Met Pro Gly Gln Glu Ala Gly
580 585 590

Leu Gly Gln Val Pro Leu Ile Val Gly Ile Leu Leu Val Leu Met Ala
595 600 605

Val Val Leu Ala Ser Leu Ile Tyr Arg Arg Arg Leu Met Lys Gln Asp
610 615 620

Phe Ser Val Pro Gln Leu Pro His Ser Ser Ser His Trp Leu Arg Leu
625 630 635 640

Pro Arg Ile Phe Cys Ser Cys Pro Ile Gly Glu Asn Ser Pro Leu Leu
645 650 655

Ser Gly Gln Gln Val
660

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<223> siRNA-TCRa-1

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guaaggauuc ugauguguat t 21

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<223> siRNA-TCRa-2

<400> 54
uacacaucag aaucuuact t 21

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<223> siRNA-TCRb-1

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ccaccauccu cuaugagaut t

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aucucauaga ggaugguggt t

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<223> MAGE-A1289-297

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Arg Val Arg Phe Phe Phe Pro Ser Leu

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<210> 63
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<400> 63

Tyr Phe Pro Asp Trp Gln Asn Tyr Thr
1 5

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<211> 20
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<400> 64

Met Asp Leu Val Leu Lys Arg Cys Leu Leu His Leu Ala Val Ile Gly
1 5 10 15

Ala Leu Leu Ala
20

<210> 65
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<400> 65

Lys Arg Cys Leu Leu His Leu Ala Val Ile Gly Ala Leu Leu Ala Val
1 5 10 15

Gly Ala Thr Lys
20

<210> 66

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<400> 66

His	Leu	Ala	Val	Ile	Gly	Ala	Leu	Leu	Ala	Val	Gly	Ala	Thr	Lys	Val
1				5					10					15	

Pro	Arg	Asn	Gln
			20

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<400> 67

Gly	Ala	Leu	Leu	Ala	Val	Gly	Ala	Thr	Lys	Val	Pro	Arg	Asn	Gln	Asp
1				5					10					15	

Trp	Leu	Gly	Val
			20

<210> 68
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<220>
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<400> 68

Val	Gly	Ala	Thr	Lys	Val	Pro	Arg	Asn	Gln	Asp	Trp	Leu	Gly	Val	Ser
1				5					10					15	

Arg	Gln	Leu	Arg
			20

<210> 69

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<212> PRT
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<220>
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<400> 69

Val	Pro	Arg	Asn	Gln	Asp	Trp	Leu	Gly	Val	Ser	Arg	Gln	Leu	Arg	Thr
1			5					10					15		

Lys	Ala	Trp	Asn
			20

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<400> 70

Asp	Trp	Leu	Gly	Val	Ser	Arg	Gln	Leu	Arg	Thr	Lys	Ala	Trp	Asn	Arg
1				5					10					15	

Gln	Leu	Tyr	Pro
			20

<210> 71
<211> 20
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<400> 71

Ser	Arg	Gln	Leu	Arg	Thr	Lys	Ala	Trp	Asn	Arg	Gln	Leu	Tyr	Pro	Glu
1				5					10					15	

Trp	Thr	Glu	Ala
			20

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<400> 72

Thr	Lys	Ala	Trp	Asn	Arg	Gln	Leu	Tyr	Pro	Glu	Trp	Thr	Glu	Ala	Gln
1				5					10					15	

Arg	Leu	Asp	Cys
			20

<210> 73
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<400> 73

Arg	Gln	Leu	Tyr	Pro	Glu	Trp	Thr	Glu	Ala	Gln	Arg	Leu	Asp	Cys	Trp
1				5					10					15	

Arg	Gly	Gly	Gln
			20

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<400> 74

Glu	Trp	Thr	Glu	Ala	Gln	Arg	Leu	Asp	Cys	Trp	Arg	Gly	Gly	Gln	Val
1				5					10					15	

Ser	Leu	Lys	Val
			20

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Gln	Arg	Leu	Asp	Cys	Trp	Arg	Gly	Gly	Gln	Val	Ser	Leu	Lys	Val	Ser
1				5					10					15	

Asn	Asp	Gly	Pro
			20

<210> 76
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<220>
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<400> 76

Trp	Arg	Gly	Gly	Gln	Val	Ser	Leu	Lys	Val	Ser	Asn	Asp	Gly	Pro	Thr
1				5					10					15	

Leu	Ile	Gly	Ala
			20

<210> 77
<211> 20
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<220>
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<400> 77

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

Ala	Ser	Phe	Ser
			20

<210> 78

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<212> PRT
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<400> 78

Ser Asn Asp Gly Pro Thr Leu Ile Gly Ala Asn Ala Ser Phe Ser Ile
1 5 10 15

Ala Leu Asn Phe
20

<210> 79
<211> 20
<212> PRT
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<220>
<223> Synthetic Peptide

<400> 79

Thr Leu Ile Gly Ala Asn Ala Ser Phe Ser Ile Ala Leu Asn Phe Pro
1 5 10 15

Gly Ser Gln Lys
20

<210> 80
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 80

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

Leu Pro Asp Gly
20

<210> 81

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

<220>
<223> Synthetic Peptide

<400> 81

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

Val Ile Trp Val
20

<210> 82
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 82

Pro Gly Ser Gln Lys Val Leu Pro Asp Gly Gln Val Ile Trp Val Asn
1 5 10 15

Asn Thr Ile Ile
20

<210> 83
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 83

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

Gly Ser Gln Val
20

<210> 84

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

<220>
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<400> 84

Gln Val Ile Trp Val Asn Asn Thr Ile Ile Asn Gly Ser Gln Val Trp
1 5 10 15

Gly Gly Gln Pro
20

<210> 85
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<212> PRT
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<220>
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<400> 85

Asn Asn Thr Ile Ile Asn Gly Ser Gln Val Trp Gly Gly Gln Pro Val
1 5 10 15

Tyr Pro Gln Glu
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<210> 86
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 86

Asn Gly Ser Gln Val Trp Gly Gly Gln Pro Val Tyr Pro Gln Glu Thr
1 5 10 15

Asp Asp Ala Cys
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<210> 87

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<212> PRT
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<220>
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<400> 87

Trp Gly Gly Gln Pro Val Tyr Pro Gln Glu Thr Asp Asp Ala Cys Ile
1 5 10 15

Phe Pro Asp Gly
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<210> 88
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 88

Val Tyr Pro Gln Glu Thr Asp Asp Ala Cys Ile Phe Pro Asp Gly Gly
1 5 10 15

Pro Cys Pro Ser
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<210> 89
<211> 20
<212> PRT
<213> Artificial Sequence

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<400> 89

Thr Asp Asp Ala Cys Ile Phe Pro Asp Gly Gly Pro Cys Pro Ser Gly
1 5 10 15

Ser Trp Ser Gln
20

<210> 90

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

<220>
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<400> 90

Ile Phe Pro Asp Gly Gly Pro Cys Pro Ser Gly Ser Trp Ser Gln Lys
1 5 10 15

Arg Ser Phe Val
20

<210> 91
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 91

Gly Pro Cys Pro Ser Gly Ser Trp Ser Gln Lys Arg Ser Phe Val Tyr
1 5 10 15

Val Trp Lys Thr
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<210> 92
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 92

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

Gly Gln Tyr Trp
20

<210> 93

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

<220>
<223> Synthetic Peptide

<400> 93

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

Val Leu Gly Gly
20

<210> 94
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 94

Tyr Val Trp Lys Thr Trp Gly Gln Tyr Trp Gln Val Leu Gly Gly Pro
1 5 10 15

Val Ser Gly Leu
20

<210> 95
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 95

Trp Gly Gln Tyr Trp Gln Val Leu Gly Gly Pro Val Ser Gly Leu Ser
1 5 10 15

Ile Gly Thr Gly
20

<210> 96

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

<220>
<223> Synthetic Peptide

<400> 96

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

Ala Met Leu Gly
20

<210> 97
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 97

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

His Thr Met Glu
20

<210> 98
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 98

Ser Ile Gly Thr Gly Arg Ala Met Leu Gly Thr His Thr Met Glu Val
1 5 10 15

Thr Val Tyr His
20

<210> 99

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

<220>
<223> Synthetic Peptide

<400> 99

Arg Ala Met Leu Gly Thr His Thr Met Glu Val Thr Val Tyr His Arg
1 5 10 15

Arg Gly Ser Arg
20

<210> 100
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 100

Thr His Thr Met Glu Val Thr Val Tyr His Arg Arg Gly Ser Arg Ser
1 5 10 15

Tyr Val Pro Leu
20

<210> 101
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 101

Val Thr Val Tyr His Arg Arg Gly Ser Arg Ser Tyr Val Pro Leu Ala
1 5 10 15

His Ser Ser Ser
20

<210> 102

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

<220>
<223> Synthetic Peptide

<400> 102

Arg	Arg	Gly	Ser	Arg	Ser	Tyr	Val	Pro	Leu	Ala	His	Ser	Ser	Ser	Ala
1				5					10					15	

Phe	Thr	Ile	Thr
			20

<210> 103
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 103

Ser	Tyr	Val	Pro	Leu	Ala	His	Ser	Ser	Ser	Ala	Phe	Thr	Ile	Thr	Asp
1				5					10					15	

Gln	Val	Pro	Phe
			20

<210> 104
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 104

Ala	His	Ser	Ser	Ser	Ala	Phe	Thr	Ile	Thr	Asp	Gln	Val	Pro	Phe	Ser
1				5					10					15	

Val	Ser	Val	Ser
			20

<210> 105

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

<220>
<223> Synthetic Peptide

<400> 105

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

Leu	Arg	Ala	Leu
			20

<210> 106
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 106

Asp	Gln	Val	Pro	Phe	Ser	Val	Ser	Val	Ser	Gln	Leu	Arg	Ala	Leu	Asp
1				5					10					15	

Gly	Gly	Asn	Lys
			20

<210> 107
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 107

Ser	Val	Ser	Val	Ser	Gln	Leu	Arg	Ala	Leu	Asp	Gly	Gly	Asn	Lys	His
1				5					10					15	

Phe	Leu	Arg	Asn
			20

<210> 108

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

<220>
<223> Synthetic Peptide

<400> 108

Gln Leu Arg Ala Leu Asp Gly Gly Asn Lys His Phe Leu Arg Asn Gln
1 5 10 15

Pro Leu Thr Phe
20

<210> 109
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 109

Asp Gly Gly Asn Lys His Phe Leu Arg Asn Gln Pro Leu Thr Phe Ala
1 5 10 15

Leu Gln Leu His
20

<210> 110
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 110

His Phe Leu Arg Asn Gln Pro Leu Thr Phe Ala Leu Gln Leu His Asp
1 5 10 15

Pro Ser Gly Tyr
20

<210> 111

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

<220>
<223> Synthetic Peptide

<400> 111

Gln	Pro	Leu	Thr	Phe	Ala	Leu	Gln	Leu	His	Asp	Pro	Ser	Gly	Tyr	Leu
1				5					10					15	

Ala	Glu	Ala	Asp
			20

<210> 112
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 112

Ala	Leu	Gln	Leu	His	Asp	Pro	Ser	Gly	Tyr	Leu	Ala	Glu	Ala	Asp	Leu
1				5					10					15	

Ser	Tyr	Thr	Trp
			20

<210> 113
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 113

Asp	Pro	Ser	Gly	Tyr	Leu	Ala	Glu	Ala	Asp	Leu	Ser	Tyr	Thr	Trp	Asp
1				5					10					15	

Phe	Gly	Asp	Ser
			20

<210> 114

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

<220>
<223> Synthetic Peptide

<400> 114

Leu Ala Glu Ala Asp Leu Ser Tyr Thr Trp Asp Phe Gly Asp Ser Ser
1 5 10 15

Gly Thr Leu Ile
20

<210> 115
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 115

Leu Ser Tyr Thr Trp Asp Phe Gly Asp Ser Ser Gly Thr Leu Ile Ser
1 5 10 15

Arg Ala Leu Val
20

<210> 116
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 116

Asp Phe Gly Asp Ser Ser Gly Thr Leu Ile Ser Arg Ala Leu Val Val
1 5 10 15

Thr His Thr Tyr
20

<210> 117

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

<220>
<223> Synthetic Peptide

<400> 117

Ser Gly Thr Leu Ile Ser Arg Ala Leu Val Val Thr His Thr Tyr Leu
1 5 10 15

Glu Pro Gly Pro
20

<210> 118
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 118

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

Thr Ala Gln Val
20

<210> 119
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 119

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

Leu Gln Ala Ala
20

<210> 120

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

<220>
<223> Synthetic Peptide

<400> 120

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

Pro Leu Thr Ser
20

<210> 121
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 121

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

Gly Ser Ser Pro
20

<210> 122
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 122

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

Pro Gly Thr Thr
20

<210> 123

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

<220>
<223> Synthetic Peptide

<400> 123

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

Gly His Arg Pro
20

<210> 124
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 124

Cys Gly Ser Ser Pro Val Pro Gly Thr Thr Asp Gly His Arg Pro Thr
1 5 10 15

Ala Glu Ala Pro
20

<210> 125
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 125

Val Pro Gly Thr Thr Asp Gly His Arg Pro Thr Ala Glu Ala Pro Asn
1 5 10 15

Thr Thr Ala Gly
20

<210> 126

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

<220>
<223> Synthetic Peptide

<400> 126

Asp Gly His Arg Pro Thr Ala Glu Ala Pro Asn Thr Thr Ala Gly Gln
1 5 10 15

Val Pro Thr Thr
20

<210> 127
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 127

Thr Ala Glu Ala Pro Asn Thr Thr Ala Gly Gln Val Pro Thr Thr Glu
1 5 10 15

Val Val Gly Thr
20

<210> 128
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 128

Asn Thr Thr Ala Gly Gln Val Pro Thr Thr Glu Val Val Gly Thr Thr
1 5 10 15

Pro Gly Gln Ala
20

<210> 129

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

<220>
<223> Synthetic Peptide

<400> 129

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

Thr Ala Glu Pro
20

<210> 130
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 130

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

Gly Thr Thr Ser
20

<210> 131
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 131

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

Gln Val Pro Thr
20

<210> 132

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

<220>
<223> Synthetic Peptide

<400> 132

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

Glu	Val	Ile	Ser
			20

<210> 133
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 133

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

Ala	Pro	Val	Gln
			20

<210> 134
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 134

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

Pro	Thr	Ala	Glu
			20

<210> 135

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

<220>
<223> Synthetic Peptide

<400> 135

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

Thr Gly Met Thr
20

<210> 136
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 136

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

Glu Lys Val Pro
20

<210> 137
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 137

Met Pro Thr Ala Glu Ser Thr Gly Met Thr Pro Glu Lys Val Pro Val
1 5 10 15

Ser Glu Val Met
20

<210> 138

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

<220>
<223> Synthetic Peptide

<400> 138

Ser	Thr	Gly	Met	Thr	Pro	Glu	Lys	Val	Pro	Val	Ser	Glu	Val	Met	Gly
1				5					10					15	

Thr	Thr	Leu	Ala
			20

<210> 139
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 139

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

Met	Ser	Thr	Pro
			20

<210> 140
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 140

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

Ala	Thr	Gly	Met
			20

<210> 141

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

<220>
<223> Synthetic Peptide

<400> 141

Gly	Thr	Thr	Leu	Ala	Glu	Met	Ser	Thr	Pro	Glu	Ala	Thr	Gly	Met	Thr
1			5					10					15		

Pro	Ala	Glu	Val
			20

<210> 142
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 142

Glu	Met	Ser	Thr	Pro	Glu	Ala	Thr	Gly	Met	Thr	Pro	Ala	Glu	Val	Ser
1			5					10					15		

Ile	Val	Val	Leu
			20

<210> 143
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 143

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

Gly	Thr	Thr	Ala
			20

<210> 144

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

<220>
<223> Synthetic Peptide

<400> 144

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

Gln Val Thr Thr
20

<210> 145
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 145

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

Glu Trp Val Glu
20

<210> 146
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 146

Ser Gly Thr Thr Ala Ala Gln Val Thr Thr Thr Glu Trp Val Glu Thr
1 5 10 15

Thr Ala Arg Glu
20

<210> 147

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

<220>
<223> Synthetic Peptide

<400> 147

Ala Gln Val Thr Thr Thr Glu Trp Val Glu Thr Thr Ala Arg Glu Leu
1 5 10 15

Pro Ile Pro Glu
20

<210> 148
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 148

Thr Glu Trp Val Glu Thr Thr Ala Arg Glu Leu Pro Ile Pro Glu Pro
1 5 10 15

Glu Gly Pro Asp
20

<210> 149
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 149

Thr Thr Ala Arg Glu Leu Pro Ile Pro Glu Pro Glu Gly Pro Asp Ala
1 5 10 15

Ser Ser Ile Met
20

<210> 150

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

<220>
<223> Synthetic Peptide

<400> 150

Leu Pro Ile Pro Glu Pro Glu Gly Pro Asp Ala Ser Ser Ile Met Ser
1 5 10 15

Thr Glu Ser Ile
20

<210> 151
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 151

Pro Glu Gly Pro Asp Ala Ser Ser Ile Met Ser Thr Glu Ser Ile Thr
1 5 10 15

Gly Ser Leu Gly
20

<210> 152
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 152

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

Leu Leu Asp Gly
20

<210> 153

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

<220>
<223> Synthetic Peptide

<400> 153

Ser Thr Glu Ser Ile Thr Gly Ser Leu Gly Pro Leu Leu Asp Gly Thr
1 5 10 15

Ala Thr Leu Arg
20

<210> 154
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 154

Thr Gly Ser Leu Gly Pro Leu Leu Asp Gly Thr Ala Thr Leu Arg Leu
1 5 10 15

Val Lys Arg Gln
20

<210> 155
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 155

Pro Leu Leu Asp Gly Thr Ala Thr Leu Arg Leu Val Lys Arg Gln Val
1 5 10 15

Pro Leu Asp Cys
20

<210> 156

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

<220>
<223> Synthetic Peptide

<400> 156

Thr	Ala	Thr	Leu	Arg	Leu	Val	Lys	Arg	Gln	Val	Pro	Leu	Asp	Cys	Val
1				5					10					15	

Leu	Tyr	Arg	Tyr
			20

<210> 157
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 157

Leu	Val	Lys	Arg	Gln	Val	Pro	Leu	Asp	Cys	Val	Leu	Tyr	Arg	Tyr	Gly
1				5					10					15	

Ser	Phe	Ser	Val
			20

<210> 158
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 158

Val	Pro	Leu	Asp	Cys	Val	Leu	Tyr	Arg	Tyr	Gly	Ser	Phe	Ser	Val	Thr
1				5					10					15	

Leu	Asp	Ile	Val
			20

<210> 159

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

<220>
<223> Synthetic Peptide

<400> 159

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

Gly Ile Glu Ser
20

<210> 160
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 160

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

Glu Ile Leu Gln
20

<210> 161
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 161

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

Val Pro Ser Gly
20

<210> 162

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

<220>
<223> Synthetic Peptide

<400> 162

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

Gly Asp Ala Phe
20

<210> 163
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 163

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

Leu Thr Val Ser
20

<210> 164
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 164

Ala Val Pro Ser Gly Glu Gly Asp Ala Phe Glu Leu Thr Val Ser Cys
1 5 10 15

Gln Gly Gly Leu
20

<210> 165

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

<220>
<223> Synthetic Peptide

<400> 165

Glu Gly Asp Ala Phe Glu Leu Thr Val Ser Cys Gln Gly Gly Leu Pro
1 5 10 15

Lys Glu Ala Cys
20

<210> 166
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 166

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

Glu Ile Ser Ser
20

<210> 167
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 167

Cys Gln Gly Gly Leu Pro Lys Glu Ala Cys Met Glu Ile Ser Ser Pro
1 5 10 15

Gly Cys Gln Pro
20

<210> 168

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

<220>
<223> Synthetic Peptide

<400> 168

Pro Lys Glu Ala Cys Met Glu Ile Ser Ser Pro Gly Cys Gln Pro Pro
1 5 10 15

Ala Gln Arg Leu
20

<210> 169
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 169

Met Glu Ile Ser Ser Pro Gly Cys Gln Pro Pro Ala Gln Arg Leu Cys
1 5 10 15

Gln Pro Val Leu
20

<210> 170
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 170

Pro Gly Cys Gln Pro Pro Ala Gln Arg Leu Cys Gln Pro Val Leu Pro
1 5 10 15

Ser Pro Ala Cys
20

<210> 171

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

<220>
<223> Synthetic Peptide

<400> 171

Pro	Ala	Gln	Arg	Leu	Cys	Gln	Pro	Val	Leu	Pro	Ser	Pro	Ala	Cys	Gln
1				5					10					15	

Leu	Val	Leu	His
			20

<210> 172
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 172

Cys	Gln	Pro	Val	Leu	Pro	Ser	Pro	Ala	Cys	Gln	Leu	Val	Leu	His	Gln
1				5					10					15	

Ile	Leu	Lys	Gly
			20

<210> 173
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 173

Pro	Ser	Pro	Ala	Cys	Gln	Leu	Val	Leu	His	Gln	Ile	Leu	Lys	Gly	Gly
1				5					10					15	

Ser	Gly	Thr	Tyr
			20

<210> 174

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

<220>
<223> Synthetic Peptide

<400> 174

Gln	Leu	Val	Leu	His	Gln	Ile	Leu	Lys	Gly	Gly	Ser	Gly	Thr	Tyr	Cys
1				5					10					15	

Leu	Asn	Val	Ser
			20

<210> 175
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 175

Gln	Ile	Leu	Lys	Gly	Gly	Ser	Gly	Thr	Tyr	Cys	Leu	Asn	Val	Ser	Leu
1				5					10					15	

Ala	Asp	Thr	Asn
			20

<210> 176
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 176

Gly	Ser	Gly	Thr	Tyr	Cys	Leu	Asn	Val	Ser	Leu	Ala	Asp	Thr	Asn	Ser
1				5					10					15	

Leu	Ala	Val	Val
			20

<210> 177

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

<220>
<223> Synthetic Peptide

<400> 177

Cys	Leu	Asn	Val	Ser	Leu	Ala	Asp	Thr	Asn	Ser	Leu	Ala	Val	Val	Ser
1				5					10					15	

Thr	Gln	Leu	Ile
			20

<210> 178
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 178

Leu	Ala	Asp	Thr	Asn	Ser	Leu	Ala	Val	Val	Ser	Thr	Gln	Leu	Ile	Met
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Pro	Gly	Gln	Glu
			20

<210> 179
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 179

Ser	Leu	Ala	Val	Val	Ser	Thr	Gln	Leu	Ile	Met	Pro	Gly	Gln	Glu	Ala
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Gly	Leu	Gly	Gln
			20

<210> 180

<211> 20
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<220>
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<400> 180

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

Pro Leu Ile Val
20

<210> 181
<211> 20
<212> PRT
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<220>
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<400> 181

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

Ile Leu Leu Val
20

<210> 182
<211> 20
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<220>
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<400> 182

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

Met Ala Val Val
20

<210> 183

<211> 20
<212> PRT
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<220>
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<400> 183

Val Pro Leu Ile Val Gly Ile Leu Leu Val Leu Met Ala Val Val Leu
1 5 10 15

Ala Ser Leu Ile
20

<210> 184
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<220>
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<400> 184

Gly Ile Leu Leu Val Leu Met Ala Val Val Leu Ala Ser Leu Ile Tyr
1 5 10 15

Arg Arg Arg Leu
20

<210> 185
<211> 20
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<220>
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<400> 185

Leu Met Ala Val Val Leu Ala Ser Leu Ile Tyr Arg Arg Arg Leu Met
1 5 10 15

Lys Gln Asp Phe
20

<210> 186

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

<220>
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<400> 186

Leu Ala Ser Leu Ile Tyr Arg Arg Arg Leu Met Lys Gln Asp Phe Ser
1 5 10 15

Val Pro Gln Leu
20

<210> 187
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
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<400> 187

Tyr Arg Arg Arg Leu Met Lys Gln Asp Phe Ser Val Pro Gln Leu Pro
1 5 10 15

His Ser Ser Ser
20

<210> 188
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 188

Met Lys Gln Asp Phe Ser Val Pro Gln Leu Pro His Ser Ser Ser His
1 5 10 15

Trp Leu Arg Leu
20

<210> 189

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

<220>
<223> Synthetic Peptide

<400> 189

Ser Val Pro Gln Leu Pro His Ser Ser Ser His Trp Leu Arg Leu Pro
1 5 10 15

Arg Ile Phe Cys
20

<210> 190
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 190

Pro His Ser Ser Ser His Trp Leu Arg Leu Pro Arg Ile Phe Cys Ser
1 5 10 15

Cys Pro Ile Gly
20

<210> 191
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 191

His Trp Leu Arg Leu Pro Arg Ile Phe Cys Ser Cys Pro Ile Gly Glu
1 5 10 15

Asn Ser Pro Leu
20

<210> 192

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

<220>
<223> Synthetic Peptide

<400> 192

Pro Arg Ile Phe Cys Ser Cys Pro Ile Gly Glu Asn Ser Pro Leu Leu
1 5 10 15

Ser Gly Gln Gln
20

<210> 193
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Synthetic Peptide

<400> 193

Arg Ile Phe Cys Ser Cys Pro Ile Gly Glu Asn Ser Pro Leu Leu Ser
1 5 10 15

Gly Gln Gln Val
20

<210> 194
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<220>
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<400> 194

His Arg Arg Gly Ser Arg Ser Tyr
1 5