

SEQUENCE LISTING

<110> Tessa Therapeutics Ltd.
The University of North Carolina at Chapel Hill

<120> Treatment of CD30-positive cancer

<130> 007953490

<160> 36

<170> PatentIn version 3.5

<210> 1

<211> 595

<212> PRT

<213> Homo sapiens

<400> 1

Met Arg Val Leu Leu Ala Ala Leu Gly Leu Leu Phe Leu Gly Ala Leu
1 5 10 15

Arg Ala Phe Pro Gln Asp Arg Pro Phe Glu Asp Thr Cys His Gly Asn
20 25 30

Pro Ser His Tyr Tyr Asp Lys Ala Val Arg Arg Cys Cys Tyr Arg Cys
35 40 45

Pro Met Gly Leu Phe Pro Thr Gln Gln Cys Pro Gln Arg Pro Thr Asp
50 55 60

Cys Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Asp Arg
65 70 75 80

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

Pro Cys Ala Trp Asn Ser Ser Arg Val Cys Glu Cys Arg Pro Gly Met
100 105 110

Phe Cys Ser Thr Ser Ala Val Asn Ser Cys Ala Arg Cys Phe Phe His
115 120 125

Ser Val Cys Pro Ala Gly Met Ile Val Lys Phe Pro Gly Thr Ala Gln
130 135 140

Lys Asn Thr Val Cys Glu Pro Ala Ser Pro Gly Val Ser Pro Ala Cys
145 150 155 160

Ala Ser Pro Glu Asn Cys Lys Glu Pro Ser Ser Gly Thr Ile Pro Gln
165 170 175

Ala Lys Pro Thr Pro Val Ser Pro Ala Thr Ser Ser Ala Ser Thr Met
180 185 190

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

Thr Arg Ala Pro Asp Ser Pro Ser Ser Val Gly Arg Pro Ser Ser Asp
210 215 220

Pro Gly Leu Ser Pro Thr Gln Pro Cys Pro Glu Gly Ser Gly Asp Cys
225 230 235 240

Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Gly Arg Cys
245 250 255

Thr Ala Cys Val Ser Cys Ser Arg Asp Asp Leu Val Glu Lys Thr Pro
260 265 270

Cys Ala Trp Asn Ser Ser Arg Thr Cys Glu Cys Arg Pro Gly Met Ile
275 280 285

Cys Ala Thr Ser Ala Thr Asn Ser Cys Ala Arg Cys Val Pro Tyr Pro
290 295 300

Ile Cys Ala Ala Glu Thr Val Thr Lys Pro Gln Asp Met Ala Glu Lys
305 310 315 320

Asp Thr Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys Asn
325 330 335

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

Ser Leu Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro Thr
355 360 365

Ser Ala Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp Ala
370 375 380

Gly Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val Gly
385 390 395 400

Ser Ser Ala Phe Leu Leu Cys His Arg Arg Ala Cys Arg Lys Arg Ile
405 410 415

Arg Gln Lys Leu His Leu Cys Tyr Pro Val Gln Thr Ser Gln Pro Lys
420 425 430

Leu Glu Leu Val Asp Ser Arg Pro Arg Arg Ser Ser Thr Gln Leu Arg
435 440 445

Ser Gly Ala Ser Val Thr Glu Pro Val Ala Glu Glu Arg Gly Leu Met
450 455 460

Ser Gln Pro Leu Met Glu Thr Cys His Ser Val Gly Ala Ala Tyr Leu
465 470 475 480

Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser
485 490 495

Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn Asn
500 505 510

Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val Gly
515 520 525

Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala
530 535 540

Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His Tyr
545 550 555 560

Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val Met
565 570 575

Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala
580 585 590

Ser Gly Lys
595

<210> 2
<211> 132
<212> PRT
<213> Homo sapiens

<400> 2

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

Leu Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser
20 25 30

Ser Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn
35 40 45

Asn Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val
50 55 60

Gly Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro
65 70 75 80

Ala Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His
85 90 95

Tyr Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val
100 105 110

Met Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala
115 120 125

Ala Ser Gly Lys
130

<210> 3

<211> 483
<212> PRT
<213> Homo sapiens

<400> 3

Met Phe Cys Ser Thr Ser Ala Val Asn Ser Cys Ala Arg Cys Phe Phe
1 5 10 15

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

Gln Lys Asn Thr Val Cys Glu Pro Ala Ser Pro Gly Val Ser Pro Ala
35 40 45

Cys Ala Ser Pro Glu Asn Cys Lys Glu Pro Ser Ser Gly Thr Ile Pro
50 55 60

Gln Ala Lys Pro Thr Pro Val Ser Pro Ala Thr Ser Ser Ala Ser Thr
65 70 75 80

Met Pro Val Arg Gly Gly Thr Arg Leu Ala Gln Glu Ala Ala Ser Lys
85 90 95

Leu Thr Arg Ala Pro Asp Ser Pro Ser Ser Val Gly Arg Pro Ser Ser
100 105 110

Asp Pro Gly Leu Ser Pro Thr Gln Pro Cys Pro Glu Gly Ser Gly Asp
115 120 125

Cys Arg Lys Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Gly Arg
130 135 140

Cys Thr Ala Cys Val Ser Cys Ser Arg Asp Asp Leu Val Glu Lys Thr
145 150 155 160

Pro Cys Ala Trp Asn Ser Ser Arg Thr Cys Glu Cys Arg Pro Gly Met
165 170 175

Ile Cys Ala Thr Ser Ala Thr Asn Ser Cys Ala Arg Cys Val Pro Tyr
180 185 190

Pro Ile Cys Ala Ala Glu Thr Val Thr Lys Pro Gln Asp Met Ala Glu
195 200 205

Lys Asp Thr Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys
210 215 220

Asn Pro Thr Pro Glu Asn Gly Glu Ala Pro Ala Ser Thr Ser Pro Thr
225 230 235 240

Gln Ser Leu Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro
245 250 255

Thr Ser Ala Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp
260 265 270

Ala Gly Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val
275 280 285

Gly Ser Ser Ala Phe Leu Leu Cys His Arg Arg Ala Cys Arg Lys Arg
290 295 300

Ile Arg Gln Lys Leu His Leu Cys Tyr Pro Val Gln Thr Ser Gln Pro
305 310 315 320

Lys Leu Glu Leu Val Asp Ser Arg Pro Arg Arg Ser Ser Thr Leu Arg
325 330 335

Ser Gly Ala Ser Val Thr Glu Pro Val Ala Glu Glu Arg Gly Leu Met
340 345 350

Ser Gln Pro Leu Met Glu Thr Cys His Ser Val Gly Ala Ala Tyr Leu
355 360 365

Glu Ser Leu Pro Leu Gln Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser
370 375 380

Pro Arg Asp Leu Pro Glu Pro Arg Val Ser Thr Glu His Thr Asn Asn
385 390 395 400

Lys Ile Glu Lys Ile Tyr Ile Met Lys Ala Asp Thr Val Ile Val Gly
405 410 415

Thr Val Lys Ala Glu Leu Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala
420 425 430

Glu Pro Glu Leu Glu Glu Glu Leu Glu Ala Asp His Thr Pro His Tyr
435 440 445

Pro Glu Gln Glu Thr Glu Pro Pro Leu Gly Ser Cys Ser Asp Val Met
450 455 460

Leu Ser Val Glu Glu Glu Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala
465 470 475 480

Ser Gly Lys

<210> 4
<211> 18
<212> PRT
<213> Homo sapiens

<400> 4

Met Arg Val Leu Leu Ala Ala Leu Gly Leu Leu Phe Leu Gly Ala Leu
1 5 10 15

Arg Ala

<210> 5
<211> 367
<212> PRT
<213> Homo sapiens

<400> 5

Phe Pro Gln Asp Arg Pro Phe Glu Asp Thr Cys His Gly Asn Pro Ser
1 5 10 15

His Tyr Tyr Asp Lys Ala Val Arg Arg Cys Cys Tyr Arg Cys Pro Met
20 25 30

Gly Leu Phe Pro Thr Gln Gln Cys Pro Gln Arg Pro Thr Asp Cys Arg
35 40 45

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

Ala Cys Val Thr Cys Ser Arg Asp Asp Leu Val Glu Lys Thr Pro Cys
65 70 75 80

Ala Trp Asn Ser Ser Arg Val Cys Glu Cys Arg Pro Gly Met Phe Cys
85 90 95

Ser Thr Ser Ala Val Asn Ser Cys Ala Arg Cys Phe Phe His Ser Val
100 105 110

Cys Pro Ala Gly Met Ile Val Lys Phe Pro Gly Thr Ala Gln Lys Asn
115 120 125

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

Pro Glu Asn Cys Lys Glu Pro Ser Ser Gly Thr Ile Pro Gln Ala Lys
145 150 155 160

Pro Thr Pro Val Ser Pro Ala Thr Ser Ser Ala Ser Thr Met Pro Val
165 170 175

Arg Gly Gly Thr Arg Leu Ala Gln Glu Ala Ala Ser Lys Leu Thr Arg
180 185 190

Ala Pro Asp Ser Pro Ser Ser Val Gly Arg Pro Ser Ser Asp Pro Gly
195 200 205

Leu Ser Pro Thr Gln Pro Cys Pro Glu Gly Ser Gly Asp Cys Arg Lys
210 215 220

Gln Cys Glu Pro Asp Tyr Tyr Leu Asp Glu Ala Gly Arg Cys Thr Ala
225 230 235 240

Cys Val Ser Cys Ser Arg Asp Asp Leu Val Glu Lys Thr Pro Cys Ala
245 250 255

Trp Asn Ser Ser Arg Thr Cys Glu Cys Arg Pro Gly Met Ile Cys Ala
260 265 270

Thr Ser Ala Thr Asn Ser Cys Ala Arg Cys Val Pro Tyr Pro Ile Cys
275 280 285

Ala Ala Glu Thr Val Thr Lys Pro Gln Asp Met Ala Glu Lys Asp Thr
290 295 300

Thr Phe Glu Ala Pro Pro Leu Gly Thr Gln Pro Asp Cys Asn Pro Thr
305 310 315 320

Pro Glu Asn Gly Glu Ala Pro Ala Ser Thr Ser Pro Thr Gln Ser Leu
325 330 335

Leu Val Asp Ser Gln Ala Ser Lys Thr Leu Pro Ile Pro Thr Ser Ala
340 345 350

Pro Val Ala Leu Ser Ser Thr Gly Lys Pro Val Leu Asp Ala Gly
355 360 365

<210> 6
<211> 21
<212> PRT
<213> Homo sapiens

<400> 6

Pro Val Leu Phe Trp Val Ile Leu Val Leu Val Val Val Gly Ser
1 5 10 15

Ser Ala Phe Leu Leu
20

<210> 7
<211> 189
<212> PRT
<213> Homo sapiens

<400> 7

Cys His Arg Arg Ala Cys Arg Lys Arg Ile Arg Gln Lys Leu His Leu
1 5 10 15

Cys Tyr Pro Val Gln Thr Ser Gln Pro Lys Leu Glu Leu Val Asp Ser
20 25 30

Arg Pro Arg Arg Ser Ser Thr Gln Leu Arg Ser Gly Ala Ser Val Thr
35 40 45

Glu Pro Val Ala Glu Glu Arg Gly Leu Met Ser Gln Pro Leu Met Glu
50 55 60

Thr Cys His Ser Val Gly Ala Ala Tyr Leu Glu Ser Leu Pro Leu Gln
65 70 75 80

Asp Ala Ser Pro Ala Gly Gly Pro Ser Ser Pro Arg Asp Leu Pro Glu
85 90 95

Pro Arg Val Ser Thr Glu His Thr Asn Asn Lys Ile Glu Lys Ile Tyr
100 105 110

Ile Met Lys Ala Asp Thr Val Ile Val Gly Thr Val Lys Ala Glu Leu
115 120 125

Pro Glu Gly Arg Gly Leu Ala Gly Pro Ala Glu Pro Glu Leu Glu Glu
130 135 140

Glu Leu Glu Ala Asp His Thr Pro His Tyr Pro Glu Gln Glu Thr Glu
145 150 155 160

Pro Pro Leu Gly Ser Cys Ser Asp Val Met Leu Ser Val Glu Glu Glu
165 170 175

Gly Lys Glu Asp Pro Leu Pro Thr Ala Ala Ser Gly Lys
180 185

<210> 8

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 8

Gly Tyr Thr Phe Thr Thr Tyr Thr
1 5

<210> 9
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 9

Ile Asn Pro Ser Ser Gly Cys Ser
1 5

<210> 10
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 10

Ala Arg Arg Ala Asp Tyr Gly Asn Tyr Glu Tyr Thr Trp Phe Ala Tyr
1 5 10 15

<210> 11
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 11

Gln Asn Val Gly Thr Asn
1 5

<210> 12
<211> 3
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 12

Ser Ala Ser
1

<210> 13

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 13

Gln Gln Tyr His Thr Tyr Pro Leu Thr
1 5

<210> 14

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 14

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

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

Thr Ile His Trp Val Arg Arg Arg Pro Gly His Asp Leu Glu Trp Ile
35 40 45

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

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

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

Ala Arg Arg Ala Asp Tyr Gly Asn Tyr Glu Tyr Thr Trp Phe Ala Tyr
100 105 110

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

<210> 15
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 15

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

Asp Arg Val Asn Val Thr Tyr Lys Ala Ser Gln Asn Val Gly Thr Asn
20 25 30

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

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

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

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

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

<210> 16
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 16

Gly Gly Gly Gly Ser
1 5

<210> 17

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 17

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

<210> 18

<211> 245

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<400> 18

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

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

Thr Ile His Trp Val Arg Arg Arg Pro Gly His Asp Leu Glu Trp Ile
35 40 45

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

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

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

Ala Arg Arg Ala Asp Tyr Gly Asn Tyr Glu Tyr Thr Trp Phe Ala Tyr
100 105 110

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ser Gly Gly Gly Ser
115 120 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Val Ile Glu Leu Thr Gln
130 135 140

Ser Pro Lys Phe Met Ser Thr Ser Val Gly Asp Arg Val Asn Val Thr
145 150 155 160

Tyr Lys Ala Ser Gln Asn Val Gly Thr Asn Val Ala Trp Phe Gln Gln
165 170 175

Lys Pro Gly Gln Ser Pro Lys Val Leu Ile Tyr Ser Ala Ser Tyr Arg
180 185 190

Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
195 200 205

Phe Thr Leu Thr Ile Ser Asn Val Gln Ser Glu Asp Leu Ala Glu Tyr
210 215 220

Phe Cys Gln Gln Tyr His Thr Tyr Pro Leu Thr Phe Gly Gly Gly Thr
225 230 235 240

Lys Leu Glu Ile Lys
245

<210> 19
<211> 151
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 19

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

Ala Gln Glu Ala Ala Ser Lys Leu Thr Arg Ala Pro Asp Ser Pro Ser
20 25 30

Ser Val Gly Arg Pro Ser Ser Asp Pro Gly Leu Ser Pro Thr Gln Pro
35 40 45

Cys Pro Glu Gly Ser Gly Asp Cys Arg Lys Gln Cys Glu Pro Asp Tyr
50 55 60

Tyr Leu Asp Glu Ala Gly Arg Cys Thr Ala Cys Val Ser Cys Ser Arg
65 70 75 80

Asp Asp Leu Val Glu Lys Thr Pro Cys Ala Trp Asn Ser Ser Arg Thr
85 90 95

Cys Glu Cys Arg Pro Gly Met Ile Cys Ala Thr Ser Ala Thr Asn Ser
100 105 110

Cys Ala Arg Cys Val Pro Tyr Pro Ile Cys Ala Ala Glu Thr Val Thr
115 120 125

Lys Pro Gln Asp Met Ala Glu Lys Asp Thr Thr Phe Glu Ala Pro Pro
130 135 140

Leu Gly Thr Gln Pro Asp Cys
145 150

<210> 20
<211> 24
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 20

Phe Trp Val Leu Val Val Val Gly Gly Val Leu Ala Cys Tyr Ser Leu
1 5 10 15

Leu Val Thr Val Ala Phe Ile Ile
20

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

<220>
<223> synthetic construct

<400> 21

Leu Cys Tyr Leu Leu Asp Gly Ile Leu Phe Ile Tyr Gly Val Ile Leu
1 5 10 15

Thr Ala Leu Phe Leu
20

<210> 22
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 22

Ile Tyr Ile Trp Ala Pro Leu Ala Gly Thr Cys Gly Val Leu Leu Leu
1 5 10 15

Ser Leu Val Ile Thr Leu Tyr Cys Asn His Arg Asn
20 25

<210> 23
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<220>
<221> misc_feature
<222> (2)..(3)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> MISC_FEATURE
<222> (4)..(4)
<223> Xaa = L or I

<400> 23

Tyr Xaa Xaa Xaa
1

<210> 24

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> synthetic construct

<220>

<221> misc_feature

<222> (2)..(3)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> MISC_FEATURE

<222> (4)..(4)

<223> Xaa = L or I

<220>

<221> misc_feature

<222> (5)..(10)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> MISC_FEATURE

<222> (11)..(12)

<223> Xaa = absent or any amino acid

<220>

<221> misc_feature

<222> (14)..(15)

<223> Xaa can be any naturally occurring amino acid

<220>

<221> MISC_FEATURE

<222> (16)..(16)

<223> Xaa = L or I

<400> 24

Tyr Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Xaa Tyr Xaa Xaa Xaa
1 5 10 15

<210> 25

<211> 112

<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 25

Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly
1 5 10 15

Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr
20 25 30

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

Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys
50 55 60

Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg
65 70 75 80

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

Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
100 105 110

<210> 26
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 26

Phe Trp Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met
1 5 10 15

Asn Met Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro
20 25 30

Tyr Ala Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser
35 40

<210> 27
<211> 44
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 27

Phe Trp Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met
1 5 10 15

Asn Met Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Ala
20 25 30

Tyr Ala Ala Ala Arg Asp Phe Ala Ala Tyr Arg Ser
35 40

<210> 28
<211> 156
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 28

Phe Trp Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met
1 5 10 15

Asn Met Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro
20 25 30

Tyr Ala Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Arg Val Lys Phe
35 40 45

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

Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp
65 70 75 80

Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys
85 90 95

Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala
100 105 110

Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys
115 120 125

Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr
130 135 140

Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro Arg
145 150 155

<210> 29
<211> 12
<212> PRT
<213> Homo sapiens

<400> 29

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

<210> 30
<211> 12
<212> PRT
<213> Homo sapiens

<400> 30

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

<210> 31
<211> 220
<212> PRT
<213> Homo sapiens

<400> 31

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

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

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
35 40 45

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

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

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

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
100 105 110

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

Asp Glu Leu Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly
130 135 140

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

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

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

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
195 200 205

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215 220

<210> 32

<211> 223
<212> PRT
<213> Homo sapiens

<400> 32

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

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

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

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

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

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

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
100 105 110

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

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

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

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

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

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

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys Lys Asp Pro Lys
210 215 220

<210> 33
<211> 232
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 33

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

Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
20 25 30

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
35 40 45

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
50 55 60

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
65 70 75 80

Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
85 90 95

Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
100 105 110

Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
115 120 125

Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr
130 135 140

Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser
145 150 155 160

Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
165 170 175

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
180 185 190

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
195 200 205

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
210 215 220

Ser Leu Ser Leu Ser Pro Gly Lys
225 230

<210> 34
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 34

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser
20

<210> 35
<211> 666
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 35

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

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

Thr Ile His Trp Val Arg Arg Arg Pro Gly His Asp Leu Glu Trp Ile
35 40 45

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

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

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

Ala Arg Arg Ala Asp Tyr Gly Asn Tyr Glu Tyr Thr Trp Phe Ala Tyr
100 105 110

Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ser Gly Gly Gly Ser
115 120 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Val Ile Glu Leu Thr Gln
130 135 140

Ser Pro Lys Phe Met Ser Thr Ser Val Gly Asp Arg Val Asn Val Thr
145 150 155 160

Tyr Lys Ala Ser Gln Asn Val Gly Thr Asn Val Ala Trp Phe Gln Gln
165 170 175

Lys Pro Gly Gln Ser Pro Lys Val Leu Ile Tyr Ser Ala Ser Tyr Arg
180 185 190

Tyr Ser Gly Val Pro Asp Arg Phe Thr Gly Ser Gly Ser Gly Thr Asp
195 200 205

Phe Thr Leu Thr Ile Ser Asn Val Gln Ser Glu Asp Leu Ala Glu Tyr
210 215 220

Phe Cys Gln Gln Tyr His Thr Tyr Pro Leu Thr Phe Gly Gly Gly Thr
225 230 235 240

Lys Leu Glu Ile Lys Arg Ser Asp Pro Ala Glu Pro Lys Ser Pro Asp
245 250 255

Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
260 265 270

Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
275 280 285

Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
290 295 300

Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
305 310 315 320

Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
325 330 335

Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
340 345 350

Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
355 360 365

Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
370 375 380

Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser Leu
385 390 395 400

Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
405 410 415

Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
420 425 430

Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
435 440 445

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
450 455 460

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
465 470 475 480

Gly Lys Lys Asp Pro Lys Phe Trp Val Leu Val Val Val Gly Gly Val
485 490 495

Leu Ala Cys Tyr Ser Leu Leu Val Thr Val Ala Phe Ile Ile Phe Trp
500 505 510

Val Arg Ser Lys Arg Ser Arg Leu Leu His Ser Asp Tyr Met Asn Met
515 520 525

Thr Pro Arg Arg Pro Gly Pro Thr Arg Lys His Tyr Gln Pro Tyr Ala
530 535 540

Pro Pro Arg Asp Phe Ala Ala Tyr Arg Ser Arg Val Lys Phe Ser Arg
545 550 555 560

Ser Ala Asp Ala Pro Ala Tyr Gln Gln Gly Gln Asn Gln Leu Tyr Asn
565 570 575

Glu Leu Asn Leu Gly Arg Arg Glu Glu Tyr Asp Val Leu Asp Lys Arg
580 585 590

Arg Gly Arg Asp Pro Glu Met Gly Gly Lys Pro Arg Arg Lys Asn Pro
595 600 605

Gln Glu Gly Leu Tyr Asn Glu Leu Gln Lys Asp Lys Met Ala Glu Ala
610 615 620

Tyr Ser Glu Ile Gly Met Lys Gly Glu Arg Arg Arg Gly Lys Gly His
625 630 635 640

Asp Gly Leu Tyr Gln Gly Leu Ser Thr Ala Thr Lys Asp Thr Tyr Asp
645 650 655

Ala Leu His Met Gln Ala Leu Pro Pro Arg
660 665

<210> 36
<211> 689
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic construct

<400> 36

Met Asp Phe Gln Val Gln Ile Phe Ser Phe Leu Leu Ile Ser Ala Ser
1 5 10 15

Val Ile Met Ser Arg Met Ala Gln Val Gln Leu Gln Gln Ser Gly Ala
20 25 30

Glu Leu Ala Arg Pro Gly Ala Ser Val Lys Met Ser Cys Lys Ala Ser
35 40 45

Gly Tyr Thr Phe Thr Thr Tyr Thr Ile His Trp Val Arg Arg Arg Pro
50 55 60

Gly His Asp Leu Glu Trp Ile Gly Tyr Ile Asn Pro Ser Ser Gly Cys
65 70 75 80

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

Lys Ser Ser Asn Thr Ala Tyr Met Gln Leu Asn Ser Leu Thr Ser Glu
100 105 110

Asp Ser Ala Val Tyr Tyr Cys Ala Arg Arg Ala Asp Tyr Gly Asn Tyr
115 120 125

Glu Tyr Thr Trp Phe Ala Tyr Trp Gly Gln Gly Thr Thr Val Thr Val
130 135 140

Ser Ser Ser Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly
145 150 155 160

Ser Val Ile Glu Leu Thr Gln Ser Pro Lys Phe Met Ser Thr Ser Val
165 170 175

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

Asn Val Ala Trp Phe Gln Gln Lys Pro Gly Gln Ser Pro Lys Val Leu
195 200 205

Ile Tyr Ser Ala Ser Tyr Arg Tyr Ser Gly Val Pro Asp Arg Phe Thr
210 215 220

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

Ser Glu Asp Leu Ala Glu Tyr Phe Cys Gln Gln Tyr His Thr Tyr Pro
245 250 255

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

Ala Glu Pro Lys Ser Pro Asp Lys Thr His Thr Cys Pro Pro Cys Pro
275 280 285

Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
290 295 300

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
305 310 315 320

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
325 330 335

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
340 345 350

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
355 360 365

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
370 375 380

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
385 390 395 400

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

Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
420 425 430

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
435 440 445

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
450 455 460

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
465 470 475 480

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
485 490 495

Lys Ser Leu Ser Leu Ser Pro Gly Lys Lys Asp Pro Lys Phe Trp Val
500 505 510

Leu Val Val Val Gly Gly Val Leu Ala Cys Tyr Ser Leu Leu Val Thr
515 520 525

Val Ala Phe Ile Ile Phe Trp Val Arg Ser Lys Arg Ser Arg Leu Leu
530 535 540

His Ser Asp Tyr Met Asn Met Thr Pro Arg Arg Pro Gly Pro Thr Arg
545 550 555 560

Lys His Tyr Gln Pro Tyr Ala Pro Pro Arg Asp Phe Ala Ala Tyr Arg
565 570 575

Ser Arg Val Lys Phe Ser Arg Ser Ala Asp Ala Pro Ala Tyr Gln Gln
580 585 590

Gly Gln Asn Gln Leu Tyr Asn Glu Leu Asn Leu Gly Arg Arg Glu Glu
595 600 605

Tyr Asp Val Leu Asp Lys Arg Arg Gly Arg Asp Pro Glu Met Gly Gly
610 615 620

Lys Pro Arg Arg Lys Asn Pro Gln Glu Gly Leu Tyr Asn Glu Leu Gln
625 630 635 640

Lys Asp Lys Met Ala Glu Ala Tyr Ser Glu Ile Gly Met Lys Gly Glu
645 650 655

Arg Arg Arg Gly Lys Gly His Asp Gly Leu Tyr Gln Gly Leu Ser Thr
660 665 670

Ala Thr Lys Asp Thr Tyr Asp Ala Leu His Met Gln Ala Leu Pro Pro
675 680 685

Arg