

P05368_SEQ Protokoll_ST25.txt
SEQUENCE LISTING

<110> Erber Aktiengesellschaft
 <120> FUSARIUMTOXIN SPALTENDE POLYPEPTIDVARIANTEN, ZUATZSTOFF
 ENTHALTEND DIESELBEN UND VERWENDUNG DERSELBEN SOWIE VERFAHREN ZUR
 SPALTUNG VON FUSARIUMTOXIN
 <130> P05368PCT
 <160> 46
 <170> PatentIn version 3.5
 <210> 1
 <211> 493
 <212> PRT
 <213> Artificial sequence
 <220>
 <223> Modified from SEQ ID-Nr. 46
 <400> 1

Gln Thr Asp Asp Pro Lys Leu Val Arg His Thr Gln Ser Gly Ala Val
 1 5 10 15
 Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30
 Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45
 Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60
 Gly Asn Glu Arg Leu Arg Glu Gly Ser Arg Ala Ala Gly Thr Ser Glu
 65 70 75 80
 Asp Cys Leu Tyr Leu Asn Ile Trp Ser Pro Lys Gln Val Gly Lys Gly
 85 90 95
 Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110
 Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125
 Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140
 Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160
 Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Leu Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Leu Val Gly
 290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
 355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Ala Lys Trp Arg Thr Pro Leu Trp
 370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Ala Gly Arg Arg Pro Ala Thr
 385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
 405 410 415

Val Ser Met Phe Gly Ser Leu Glu Gly Gly Ala Gly Ala Ser Asp Ile
 420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
 435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Glu Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 2
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 2

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

P05368_SEQ Protokoll_ST25.txt

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Ala Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Glu Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 3
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 3

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

P05368_SEQ Protokoll_ST25.txt

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Glu Arg
450 455 460

P05368_SEQ Protokoll_ST25.txt

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 4
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 4

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

P05368_SEQ Protokoll_ST25.txt

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 5
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 5

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Met
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

P05368_SEQ Protokoll_ST25.txt

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220
 Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285
 Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300
 Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320
 Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335
 Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350
 Pro Ala Ala Val Ala Arg Leu Val Gly Asp Ser Gln Phe Asn Asn Gly
 355 360 365
 Ile Glu Leu Phe Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
 370 375 380
 Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
 385 390 395 400
 His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
 405 410 415
 Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
 420 425 430
 Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Thr Ser Phe Ala Val His
 435 440 445
 Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
 450 455 460
 Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
 465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 6
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 6

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

Gly Asn Glu Arg Leu Arg Glu Gly Ser Arg Ala Ala Gly Thr Ser Glu
65 70 75 80

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

P05368_SEQ Protokoll_ST25.txt

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 7
 <211> 493
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Polypeptidvariante der SEQ ID-Nr. 1
 <400> 7

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

P05368_SEQ Protokoll_ST25.txt

Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285
 Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300
 Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320
 Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335
 Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350
 Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
 355 360 365
 Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
 370 375 380
 Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
 385 390 395 400
 His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
 405 410 415
 Val Ser Met Phe Gly Ser Leu Glu Gly Gly Ala Gly Ala Ser Asp Ile
 420 425 430
 Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
 435 440 445
 Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Glu Arg
 450 455 460
 Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
 465 470 475 480
 Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
 485 490

<210> 8

<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 8

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

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

P05368_SEQ Protokoll_ST25.txt

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser His Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 9
<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 9

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
 355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
 370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
 385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
 405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
 420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
 435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
 450 455 460

His Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
 465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
 485 490

<210> 10
 <211> 493
 <212> PRT
 <213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 10

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

P05368_SEQ Protokoll_ST25.txt

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Gly Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 11
<211> 493
<212> PRT
<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 11

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255

P05368_SEQ Protokoll_ST25.txt

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 12
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 12

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

P05368_SEQ Protokoll_ST25.txt

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ala Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 13
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1
<400> 13

P05368_SEQ Protokoll_ST25.txt

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

P05368_SEQ Protokoll_ST25.txt

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Ala Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 14
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 14

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

P05368_SEQ Protokoll_ST25.txt

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30
 Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45
 Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60
 Gly Asp Glu Arg Leu Arg Glu Gly Ser Arg Ala Ala Gly Thr Ser Glu
 65 70 75 80
 Asp Cys Leu Tyr Leu Asn Ile Trp Ser Pro Lys Gln Val Gly Lys Gly
 85 90 95
 Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110
 Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125
 Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140
 Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160
 Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175
 Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190
 Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205
 Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220
 Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285

P05368_SEQ Protokoll_ST25.txt

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Leu Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 15

<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 15

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Pro Pro Ser Lys
485 490

<210> 16
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 16

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

P05368_SEQ Protokoll_ST25.txt

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

P05368_SEQ Protokoll_ST25.txt

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
 355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
 370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
 385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
 405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
 420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
 435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
 450 455 460

Arg Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
 465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
 485 490

<210> 17
 <211> 493
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 17

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

P05368_SEQ Protokoll_ST25.txt

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

P05368_SEQ Protokoll_ST25.txt

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 18

<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 18

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

P05368_SEQ Protokoll_ST25.txt

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Ser Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 19

<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 19

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

P05368_SEQ Protokoll_ST25.txt

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

P05368_SEQ Protokoll_ST25.txt

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Ile
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 20
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 20

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

P05368_SEQ Protokoll_ST25.txt

Gly Asp Glu Arg Leu Arg Glu Gly Ser Arg Ala Ala Gly Thr Ser Glu
 65 70 75 80
 Asp Cys Leu Tyr Leu Asn Ile Trp Ser Pro Lys Gln Val Gly Lys Gly
 85 90 95
 Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110
 Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125
 Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140
 Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160
 Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175
 Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190
 Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205
 Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220
 Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285
 Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300
 Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320
 Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335

P05368_SEQ Protokoll_ST25.txt

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Gly Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 21
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 21

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

P05368_SEQ Protokoll_ST25.txt

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ser Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 22
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1
<400> 22

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

P05368_SEQ Protokoll_ST25.txt

Asp Cys Leu Tyr Leu Asn Ile Trp Ser Pro Lys Gln Val Gly Lys Gly
 85 90 95
 Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110
 Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125
 Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140
 Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160
 Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175
 Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190
 Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205
 Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220
 Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285
 Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300
 Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320
 Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335
 Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350

P05368_SEQ Protokoll_ST25.txt

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Thr His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 23
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 23

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

Asp Cys Leu Tyr Leu Asn Ile Trp Ser Pro Lys Gln Val Gly Lys Gly
 85 90 95
 Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110
 Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125
 Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140
 Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160
 Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175
 Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190
 Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205
 Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220
 Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285
 Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300
 Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320
 Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335
 Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Ser Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 24

<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 24

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

P05368_SEQ Protokoll_ST25.txt

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Thr Gln Phe Asn Asn Gly
355 360 365

P05368_SEQ Protokoll_ST25.txt

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 25
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 25

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

P05368_SEQ Protokoll_ST25.txt

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

P05368_SEQ Protokoll_ST25.txt

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Arg Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 26

<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 26

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

P05368_SEQ Protokoll_ST25.txt

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

P05368_SEQ Protokoll_ST25.txt

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Gln Ser His Trp Pro Arg Tyr Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 27
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1
<400> 27

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

P05368_SEQ Protokoll_ST25.txt

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 28
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 28

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

P05368_SEQ Protokoll_ST25.txt

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140
 Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160
 Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175
 Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190
 Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205
 Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220
 Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285
 Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300
 Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320
 Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335
 Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350
 Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Ile Asn Asn Gly
 355 360 365
 Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
 370 375 380
 Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
 385 390 395 400

P05368_SEQ Protokoll_ST25.txt

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Asn Ala Cys Gln Pro Ser Lys
485 490

<210> 29
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 29

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

P05368_SEQ Protokoll_ST25.txt

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Met Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Asn Ala Cys Gln Pro Ser Lys
485 490

<210> 30
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1
<400> 30

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

P05368_SEQ Protokoll_ST25.txt

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Leu Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 31
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 31

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

P05368_SEQ Protokoll_ST25.txt

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

P05368_SEQ Protokoll_ST25.txt

Val Ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 32
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 32

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Ile
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 33
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 33

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

P05368_SEQ Protokoll_ST25.txt

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Thr Gln Phe Asn Asn Gly
355 360 365

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Ile
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 34

<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 34

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Leu Phe Asn His Gly
355 360 365

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ala Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Ala Glu Met Ser Ser Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Ile
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Pro Pro Ser Lys
485 490

<210> 35
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 35

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn His Gly
 355 360 365

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
 370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
 385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
 405 410 415

Val Ala Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
 420 425 430

Lys Leu Ala Ala Glu Met Ser Ser Ala Trp Val Ser Phe Ala Ala His
 435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Ile
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Pro Pro Ser Lys
485 490

<210> 36
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 36

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Thr Gln Phe Asn His Gly
355 360 365

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Pro Pro Ser Lys
485 490

<210> 37
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1
<400> 37

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ala Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Ala Glu Met Ser Ser Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Arg Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 38
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 38

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

P05368_SEQ Protokoll_ST25.txt

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220
 Pro Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly
 225 230 235 240
 Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255
 Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
 260 265 270
 Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
 275 280 285
 Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
 290 295 300
 Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
 305 310 315 320
 Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
 325 330 335
 Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
 340 345 350
 Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
 355 360 365
 Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
 370 375 380
 Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
 385 390 395 400
 His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
 405 410 415
 Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
 420 425 430
 Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
 435 440 445
 Gly Val Pro Asp Gln Gly Thr Lys Thr His Trp Pro Arg Phe Asp Ile
 450 455 460
 Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
 465 470 475 480

P05368_SEQ Protokoll_ST25.txt

Leu Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
485 490

<210> 39
<211> 493
<212> PRT
<213> Artificial sequence

<220>
<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 39

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

P05368_SEQ Protokoll_ST25.txt

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Thr Gln Phe Asn Asn Gly
355 360 365

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ser Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Thr His Trp Pro Arg Phe Asp Ile
450 455 460

Arg Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

P05368_SEQ Protokoll_ST25.txt
 Leu Gly Val Ser Pro Ser Lys Ala Cys Pro Pro Ser Lys
 485 490

<210> 40
 <211> 493
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 40

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

P05368_SEQ Protokoll_ST25.txt

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Leu Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Met Phe Gly Ser Leu Ala Gly Gly Ala Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Pro Pro Ser Lys
485 490

<210> 41
 <211> 493
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 41

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

P05368_SEQ Protokoll_ST25.txt

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Met Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Asn Ala Cys Pro Pro Ser Lys
485 490

P05368_SEQ Protokoll_ST25.txt

<210> 42
 <211> 493
 <212> PRT
 <213> Artificial sequence

<220>
 <223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 42

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

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

P05368_SEQ Protokoll_ST25.txt

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Met Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Thr Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Arg Gly Thr Lys Ser His Trp Pro Arg Phe Asp Arg
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Asn Ala Cys Pro Pro Ser Lys
485 490

<210> 43
<211> 493

<212> PRT

<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 43

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

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

P05368_SEQ Protokoll_ST25.txt

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn His Gly
355 360 365

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ala Val Phe Gly Ser Leu Ala Gly Gly Val Gly Pro Ala Asp Ile
420 425 430

Lys Leu Ala Ala Glu Met Ser Ser Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Gln Gly Thr Lys Thr His Trp Pro Arg Phe Asp Ile
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Lys Ala Cys Pro Pro Ser Lys
485 490

<210> 44
<211> 493
<212> PRT
<213> Artificial sequence

P05368_SEQ Protokoll_ST25.txt

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 44

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
245 250 255

P05368_SEQ Protokoll_ST25.txt

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly
355 360 365

Ile Glu Met Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ser Val Phe Gly Ser Leu Ala Gly Gly Val Gly Ala Ala Asp Ile
420 425 430

Lys Leu Ala Ala Glu Met Ser Ala Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Arg Gly Thr Gln Ser His Trp Pro Arg Tyr Asp Arg
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Asn Ala Cys Pro Pro Ser Lys
485 490

<210> 45
<211> 493
<212> PRT
<213> Artificial sequence

<220>

<223> Polypeptidvariante der SEQ ID-Nr. 1

<400> 45

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

Glu Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala
 20 25 30

Ala Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg
 35 40 45

Ala Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile
 50 55 60

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

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

Gly Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly
 100 105 110

Ser Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly
 115 120 125

Val Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu
 130 135 140

Ala His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn
 145 150 155 160

Tyr Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn
 165 170 175

Ile Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu
 180 185 190

Ser Ala Gly Ala Ser Ala Ile Gly Leu Leu Leu Thr Ser Pro Leu Ser
 195 200 205

Glu Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg
 210 215 220

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

Ala Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys
 245 250 255

P05368_SEQ Protokoll_ST25.txt

Ile Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg
260 265 270

Pro Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val
275 280 285

Asp Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Ile Val Gly
290 295 300

Gly Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys
305 310 315 320

Thr Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu
325 330 335

Ala Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val
340 345 350

Pro Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn His Gly
355 360 365

Ile Glu Val Leu Ser Ala Ala Phe Val Lys Trp Arg Thr Pro Leu Trp
370 375 380

Arg Tyr Arg Phe Leu Gly Ile Pro Gly Pro Gly Arg Arg Pro Ala Thr
385 390 395 400

His Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser
405 410 415

Val Ala Val Phe Gly Ser Leu Ala Gly Gly Val Gly Pro Ala Asp Ile
420 425 430

Lys Leu Ala Ala Glu Met Ser Ser Ala Trp Val Ser Phe Ala Ala His
435 440 445

Gly Val Pro Asp Arg Gly Thr Gln Thr His Trp Pro Arg Tyr Asp Ile
450 455 460

Ser Gly Glu Ile Lys Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly
465 470 475 480

Leu Gly Val Ser Pro Ser Asn Ala Cys Pro Pro Ser Lys
485 490

<210> 46

<211> 540

<212> PRT

<213> Sphingopyxis sp.

<400> 46

Val Lys Glu His Gln Cys Arg Gly Gly Arg Ala Ser Pro Ala Ala Pro
Seite 89

1 5 10 15
 Ala Thr Trp Leu Ala Arg Ile Ser Val Ser Arg Gly Ala Ser Ala Ile
 20 25 30
 Ala Trp Thr Phe Met Leu Gly Ala Thr Ala Ile Pro Val Ala Ala Gln
 35 40 45
 Thr Asp Asp Pro Lys Leu Val Arg His Thr Gln Ser Gly Ala Val Glu
 50 55 60
 Gly Val Glu Gly Asp Val Glu Thr Phe Leu Gly Ile Pro Phe Ala Ala
 65 70 75 80
 Pro Pro Val Gly Asp Leu Arg Trp Arg Pro Pro Ala Pro Pro Arg Ala
 85 90 95
 Trp Ala Gly Thr Arg Asp Gly Arg Arg Phe Ala Pro Asp Cys Ile Gly
 100 105 110
 Asn Glu Arg Leu Arg Glu Gly Ser Arg Ala Ala Gly Thr Ser Glu Asp
 115 120 125
 Cys Leu Tyr Leu Asn Ile Trp Ser Pro Lys Gln Val Gly Lys Gly Gly
 130 135 140
 Leu Pro Val Met Ile Trp Val Tyr Gly Gly Gly Phe Ser Gly Gly Ser
 145 150 155 160
 Gly Ala Val Pro Tyr Tyr Asp Gly Ser Ala Leu Ala Gln Lys Gly Val
 165 170 175
 Val Val Val Thr Phe Asn Tyr Arg Ala Gly Ile Leu Gly Phe Leu Ala
 180 185 190
 His Pro Ala Leu Ser Lys Glu Ser Pro Asn Gly Val Ser Gly Asn Tyr
 195 200 205
 Gly Leu Leu Asp Met Leu Ala Ala Phe Lys Trp Val Gln Asn Asn Ile
 210 215 220
 Arg Glu Phe Gly Gly Asp Pro Asn Arg Val Thr Val Phe Gly Glu Ser
 225 230 235 240
 Ala Gly Ala Ser Ala Leu Gly Leu Leu Leu Thr Ser Pro Leu Ser Glu
 245 250 255
 Ser Ala Phe Asn Gln Ala Ile Leu Gln Ser Pro Gly Leu Ala Arg Pro
 260 265 270
 Leu Ala Thr Leu Ser Glu Ser Glu Ala Asn Gly Leu Glu Leu Gly Ala
 Seite 90

275

Asp Ile Ser Ala Leu Arg Arg Ala Asp Ala Gly Glu Leu Thr Lys Ile
290 295 300

Ala Gln Ser Arg Ile Pro Met Ser Arg Gln Phe Thr Lys Pro Arg Pro
305 310 315 320

Met Gly Pro Ile Leu Asp Gly Tyr Val Leu Arg Thr Leu Asp Val Asp
325 330 335

Ala Phe Ala Lys Gly Ala Phe Arg Lys Ile Pro Val Leu Val Gly Gly
340 345 350

Asn Ala Asp Glu Gly Arg Ala Phe Thr Asp Arg Leu Pro Val Lys Thr
355 360 365

Val Leu Glu Tyr Arg Ala Tyr Leu Thr Glu Gln Phe Gly Asp Glu Ala
370 375 380

Asp Ala Trp Glu Arg Cys Tyr Pro Ala Asn Ser Asp Ala Asp Val Pro
385 390 395 400

Ala Ala Val Ala Arg Leu Phe Gly Asp Ser Gln Phe Asn Asn Gly Ile
405 410 415

Glu Leu Leu Ser Ala Ala Phe Ala Lys Trp Arg Thr Pro Leu Trp Arg
420 425 430

Tyr Arg Phe Thr Gly Ile Pro Gly Ala Gly Arg Arg Pro Ala Thr His
435 440 445

Gly Asp Glu Ile Pro Tyr Val Phe Ala Asn Leu Gly Pro Ser Ser Val
450 455 460

Ser Met Phe Gly Ser Leu Glu Gly Gly Ala Gly Ala Ser Asp Ile Lys
465 470 475 480

Leu Ala Thr Glu Met Ser Ala Ala Trp Val Ser Phe Ala Val His Gly
485 490 495

Val Pro Asp Gln Gly Thr Lys Ser His Trp Pro Arg Phe Glu Arg Arg
500 505 510

Gly Glu Ile Met Thr Phe Gly Ser Gln Val Gly Ser Gly Glu Gly Leu
515 520 525

Gly Val Ser Pro Ser Lys Ala Cys Gln Pro Ser Lys
530 535 540