

SEQUENCE LISTING

<110> Berlin-Chemie AG

<120> Pharmaceutical combinations

<130> 489.131183/01

<160> 207

<170> PatentIn version 3.5

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

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

Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
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Tyr Ala Ala Ser Asn Leu Lys Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Thr Leu Gln Pro
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35 40 45

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

Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
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Tyr Cys Thr Thr Thr Thr Val Thr
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35 40 45

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

Pro Val Tyr Gly Trp Ile Val Ala Asp Asp Cys Asp Glu Thr Glu Asp
50 55 60

Lys Leu Trp Lys Trp Val Ser Gln His Arg Leu Phe His Leu His Ser
65 70 75 80

Gln Lys Cys Leu Gly Leu Asp Ile Thr Lys Ser Val Asn Glu Leu Arg
85 90 95

Met Phe Ser Cys Asp Ser Ser Ala Met Leu Trp Trp Lys Cys Glu His
100 105 110

His Ser Leu Tyr Gly Ala Ala Arg Tyr Arg Leu Ala Leu Lys Asp Gly
115 120 125

His Gly Thr Ala Ile Ser Asn Ala Ser Asp Val Trp Lys Lys Gly Gly
130 135 140

Ser Glu Glu Ser Leu Cys Asp Gln Pro Tyr His Glu Ile Tyr Thr Arg
145 150 155 160

Asp Gly Asn Ser Tyr Gly Arg Pro Cys Glu Phe Pro Phe Leu Ile Asp
Page 6

175

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

Ala His Ala Lys Cys Lys Ala Phe Ser Ser Asp Leu Ile Ser Ile His
 385 390 395 400

Ser Leu Ala Asp Val Glu Val Val Val Thr Lys Leu His Asn Glu Asp
 405 410 415

Ile Lys Glu Glu Val Trp Ile Gly Leu Lys Asn Ile Asn Ile Pro Thr
 420 425 430

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

Leu Lys Tyr Val Cys Lys Arg Lys Gly Glu Lys Leu Asn Asp Ala Ser
 485 490 495

Ser Asp Lys Met Cys Pro Pro Asp Glu Gly Trp Lys Arg His Gly Glu
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Thr Cys Tyr Lys Ile Tyr Glu Asp Glu Val Pro Phe Gly Thr Asn Cys
 515 520 525

Asn Leu Thr Ile Thr Ser Arg Phe Glu Gln Glu Tyr Leu Asn Asp Leu
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Met Lys Lys Tyr Asp Lys Ser Leu Arg Lys Tyr Phe Trp Thr Gly Leu
 545 550 555 560

Arg Asp Val Asp Ser Cys Gly Glu Tyr Asn Trp Ala Thr Val Gly Gly
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Arg Arg Arg Ala Val Thr Phe Ser Asn Trp Asn Phe Leu Glu Pro Ala
 580 585 590

Ser Pro Gly Gly Cys Val Ala Met Ser Thr Gly Lys Ser Val Gly Lys
 595 600 605

Trp Glu Val Lys Asp Cys Arg Ser Phe Lys Ala Leu Ser Ile Cys Lys
610 615 620

Lys Met Ser Gly Pro Leu Gly Pro Glu Glu Ala Ser Pro Lys Pro Asp
625 630 635 640

Asp Pro Cys Pro Glu Gly Trp Gln Ser Phe Pro Ala Ser Leu Ser Cys
645 650 655

Tyr Lys Val Phe His Ala Glu Arg Ile Val Arg Lys Arg Asn Trp Glu
660 665 670

Glu Ala Glu Arg Phe Cys Gln Ala Leu Gly Ala His Leu Ser Ser Phe
675 680 685

Ser His Val Asp Glu Ile Lys Glu Phe Leu His Phe Leu Thr Asp Gln
690 695 700

Phe Ser Gly Gln His Trp Leu Trp Ile Gly Leu Asn Lys Arg Ser Pro
705 710 715 720

Asp Leu Gln Gly Ser Trp Gln Trp Ser Asp Arg Thr Pro Val Ser Thr
725 730 735

Ile Ile Met Pro Asn Glu Phe Gln Gln Asp Tyr Asp Ile Arg Asp Cys
740 745 750

Ala Ala Val Lys Val Phe His Arg Pro Trp Arg Arg Gly Trp His Phe
755 760 765

Tyr Asp Asp Arg Glu Phe Ile Tyr Leu Arg Pro Phe Ala Cys Asp Thr
770 775 780

Lys Leu Glu Trp Val Cys Gln Ile Pro Lys Gly Arg Thr Pro Lys Thr
785 790 795 800

Pro Asp Trp Tyr Asn Pro Asp Arg Ala Gly Ile His Gly Pro Pro Leu
805 810 815

Ile Ile Glu Gly Ser Glu Tyr Trp Phe Val Ala Asp Leu His Leu Asn
820 825 830

Tyr Glu Glu Ala Val Leu Tyr Cys Ala Ser Asn His Ser Phe Leu Ala
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Thr Ile Thr Ser Phe Val Gly Leu Lys Ala Ile Lys Asn Lys Ile Ala
850 855 860

Asn Ile Ser Gly Asp Gly Gln Lys Trp Trp Ile Arg Ile Ser Glu Trp
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Pro Ile Asp Asp His Phe Thr Tyr Ser Arg Tyr Pro Trp His Arg Phe
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Pro Val Thr Phe Gly Glu Glu Cys Leu Tyr Met Ser Ala Lys Thr Trp
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Leu Ile Asp Leu Gly Lys Pro Thr Asp Cys Ser Thr Lys Leu Pro Phe
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Ile Cys Glu Lys Tyr Asn Val Ser Ser Leu Glu Lys Tyr Ser Pro Asp
930 935 940

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

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

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

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

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

Ala Gly Thr Thr Val Thr Val Ser Ala Ala Ser Thr Lys Gly Pro Ser
115 120 125

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
130 135 140

Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
145 150 155 160

Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
165 170 175

Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
180 185 190

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
195 200 205

Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Ala Glu Pro Lys Ser Cys
210 215 220

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly
225 230 235 240

Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
245 250 255

Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
260 265 270

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
290 295 300

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350

Tyr Thr Leu Pro Pro Ser Arg Asp Glu Leu Thr Lys Asn Gln Val Ser
 355 360 365

Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val
 405 410 415

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
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Pro Gly Lys
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His Trp Phe Gln Gln Lys Pro Gly Ser Ser Pro Lys Pro Trp Ile Tyr
35 40 45

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Thr Ser Asn Pro Pro Thr
85 90 95

Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala Pro
100 105 110

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
115 120 125

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
130 135 140

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
145 150 155 160

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
165 170 175

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

Pro Val Tyr Gly Trp Ile Val Ala Asp Asp Cys Asp Glu Thr Glu Asp
50 55 60

Lys Leu Trp Lys Trp Val Ser Gln His Arg Leu Phe His Leu His Ser
65 70 75 80

Gln Lys Cys Leu Gly Leu Asp Ile Thr Lys Ser Val Asn Glu Leu Arg
85 90 95

Met Phe Ser Cys Asp Ser Ser Ala Met Leu Trp Trp Lys Cys Glu His
100 105 110

His Ser Leu Tyr Gly Ala Ala Arg Tyr Arg Leu Ala Leu Lys Asp Gly
115 120 125

His Gly Thr Ala Ile Ser Asn Ala Ser Asp Val Trp Lys Lys Gly Gly
130 135 140

Ser Glu Glu Ser Leu Cys Asp Gln Pro Tyr His Glu Ile Tyr Thr Arg
145 150 155 160

Asp Gly Asn Ser Tyr Gly Arg Pro Cys Glu Phe Pro Phe Leu Ile Asp
165 170 175

Gly Thr Trp His His Asp Cys Ile Leu Asp Glu Asp His Ser Gly Pro
180 185 190

Trp Cys Ala Thr Thr Leu Asn Tyr Glu Tyr Asp Arg Lys Trp Gly Ile
195 200 205

Cys Leu Lys Pro Glu Asn Gly Cys Glu Asp Asn Trp Glu Lys Asn Glu
210 215 220

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

Lys Glu Ala Tyr Val Ser Cys Gln Asn Gln Gly Ala Asp Leu Leu Ser
245 250 255

Ile Asn Ser Ala Ala Glu Leu Thr Tyr Leu Lys Glu Lys Glu Gly Ile
260 265 270

Ala Lys Ile Phe Trp Ile Gly Leu Asn Gln Leu Tyr Ser Ala Arg Gly
275 280 285

Trp Glu Trp Ser Asp His Lys Pro Leu Asn Phe Leu Asn Trp Asp Pro
290 295 300

Asp Arg Pro Ser Ala Pro Thr Ile Gly Gly Ser Ser Cys Ala Arg Met
305 310 315 320

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

Pro Tyr Val Cys Arg Lys Pro Leu Asn Asn Thr Val Glu Leu Thr Asp
340 345 350

Val Trp Thr Tyr Ser Asp Thr Arg Cys Asp Ala Gly Trp Leu Pro Asn
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360

365

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

Ala His Ala Lys Cys Lys Ala Phe Ser Ser Asp Leu Ile Ser Ile His
 385 390 395 400

Ser Leu Ala Asp Val Glu Val Val Val Thr Lys Leu His Asn Glu Asp
 405 410 415

Ile Lys Glu Glu Val Trp Ile Gly Leu Lys Asn Ile Asn Ile Pro Thr
 420 425 430

Leu Phe Gln Trp Ser Asp Gly Thr Glu Val Thr Leu Thr Tyr Trp Asp
 435 440 445

Glu Asn Glu Pro Asn Val Pro Tyr Asn Lys Thr Pro Asn Cys Val Ser
 450 455 460

Tyr Leu Gly Glu Leu Gly Gln Trp Lys Val Gln Ser Cys Glu Glu Lys
 465 470 475 480

Leu Lys Tyr Val Cys Lys Arg Lys Gly Glu Lys Leu Asn Asp Ala Ser
 485 490 495

Ser Asp Lys Met Cys Pro Pro Asp Glu Gly Trp Lys Arg His Gly Glu
 500 505 510

Thr Cys Tyr Lys Ile Tyr Glu Asp Glu Val Pro Phe Gly Thr Asn Cys
 515 520 525

Asn Leu Thr Ile Thr Ser Arg Phe Glu Gln Glu Tyr Leu Asn Asp Leu
 530 535 540

Met Lys Lys Tyr Asp Lys Ser Leu Arg Lys Tyr Phe Trp Thr Gly Leu
 545 550 555 560

Arg Asp Val Asp Ser Cys Gly Glu Tyr Asn Trp Ala Thr Val Gly Gly
 565 570 575

Arg Arg Arg Ala Val Thr Phe Ser Asn Trp Asn Phe Leu Glu Pro Ala
580 585 590

Ser Pro Gly Gly Cys Val Ala Met Ser Thr Gly Lys Ser Val Gly Lys
595 600 605

Trp Glu Val Lys Asp Cys Arg Ser Phe Lys Ala Leu Ser Ile Cys Lys
610 615 620

Lys Met Ser Gly Pro Leu Gly Pro Glu Glu Ala Ser Pro Lys Pro Asp
625 630 635 640

Asp Pro Cys Pro Glu Gly Trp Gln Ser Phe Pro Ala Ser Leu Ser Cys
645 650 655

Tyr Lys Val Phe His Ala Glu Arg Ile Val Arg Lys Arg Asn Trp Glu
660 665 670

Glu Ala Glu Arg Phe Cys Gln Ala Leu Gly Ala His Leu Ser Ser Phe
675 680 685

Ser His Val Asp Glu Ile Lys Glu Phe Leu His Phe Leu Thr Asp Gln
690 695 700

Phe Ser Gly Gln His Trp Leu Trp Ile Gly Leu Asn Lys Arg Ser Pro
705 710 715 720

Asp Leu Gln Gly Ser Trp Gln Trp Ser Asp Arg Thr Pro Val Ser Thr
725 730 735

Ile Ile Met Pro Asn Glu Phe Gln Gln Asp Tyr Asp Ile Arg Asp Cys
740 745 750

Ala Ala Val Lys Val Phe His Arg Pro Trp Arg Arg Gly Trp His Phe
755 760 765

Tyr Asp Asp Arg Glu Phe Ile Tyr Leu Arg Pro Phe Ala Cys Asp Thr
770 775 780

Lys Leu Glu Trp Val Cys Gln Ile Pro Lys Gly Arg Thr Pro Lys Thr
785 790 795 800

Pro Asp Trp Tyr Asn Pro Asp Arg Ala Gly Ile His Gly Pro Pro Leu
805 810 815

Ile Ile Glu Gly Ser Glu Tyr Trp Phe Val Ala Asp Leu His Leu Asn
820 825 830

Tyr Glu Glu Ala Val Leu Tyr Cys Ala Ser Asn His Ser Phe Leu Ala
835 840 845

Thr Ile Thr Ser Phe Val Gly Leu Lys Ala Ile Lys Asn Lys Ile Ala
850 855 860

Asn Ile Ser Gly Asp Gly Gln Lys Trp Trp Ile Arg Ile Ser Glu Trp
865 870 875 880

Pro Ile Asp Asp His Phe Thr Tyr Ser Arg Tyr Pro Trp His Arg Phe
885 890 895

Pro Val Thr Phe Gly Glu Glu Cys Leu Tyr Met Ser Ala Lys Thr Trp
900 905 910

Leu Ile Asp Leu Gly Lys Pro Thr Asp Cys Ser Thr Lys Leu Pro Phe
915 920 925

Ile Cys Glu Lys Tyr Asn Val Ser Ser Leu Glu Lys Tyr Ser Pro Asp
930 935 940

Ser Ala Ala Lys Val Gln Cys Ser Glu Gln Trp Ile Pro Phe Gln Asn
945 950 955 960

Lys Cys Phe Leu Lys Ile Lys Pro Val Ser Leu Thr Phe Ser Gln Ala
965 970 975

Ser Asp Thr Cys His Ser Tyr Gly Gly Thr Leu Pro Ser Val Leu Ser
980 985 990

Gln Ile Glu Gln Asp Phe Ile Thr Ser Leu Leu Pro Asp Met Glu Ala
995 1000 1005

Thr Leu Trp Ile Gly Leu Arg Trp Thr Ala Tyr Glu Lys Ile Asn
1010 1015 1020

Lys Trp Thr Asp Asn Arg Glu Leu Thr Tyr Ser Asn Phe His Pro
1025 1030 1035

Leu Leu Val Ser Gly Arg Leu Arg Ile Pro Glu Asn Phe Phe Glu
1040 1045 1050

Glu Glu Ser Arg Tyr His Cys Ala Leu Ile Leu Asn Leu Gln Lys
1055 1060 1065

Ser Pro Phe Thr Gly Thr Trp Asn Phe Thr Ser Cys Ser Glu Arg
1070 1075 1080

His Phe Val Ser Leu Cys Gln Lys Tyr Ser Glu Val Lys Ser Arg
1085 1090 1095

Gln Thr Leu Gln Asn Ala Ser Glu Thr Val Lys Tyr Leu Asn Asn
1100 1105 1110

Leu Tyr Lys Ile Ile Pro Lys Thr Leu Thr Trp His Ser Ala Lys
1115 1120 1125

Arg Glu Cys Leu Lys Ser Asn Met Gln Leu Val Ser Ile Thr Asp
1130 1135 1140

Pro Tyr Gln Gln Ala Phe Leu Ser Val Gln Ala Leu Leu His Asn
1145 1150 1155

Ser Ser Leu Trp Ile Gly Leu Phe Ser Gln Asp Asp Glu Leu Asn
1160 1165 1170

Phe Gly Trp Ser Asp Gly Lys Arg Leu His Phe Ser Arg Trp Ala
1175 1180 1185

Glu Thr Asn Gly Gln Leu Glu Asp Cys Val Val Leu Asp Thr Asp
1190 1195 1200

Gly Phe Trp Lys Thr Val Asp Cys Asn Asp Asn Gln Pro Gly Ala
1205 1210 1215

Ile Cys Tyr Tyr Ser Gly Asn Glu Thr Glu Lys Glu Val Lys Pro

1220						1225						1230			
Val	Asp	Ser	Val	Lys	Cys	Pro	Ser	Pro	Val	Leu	Asn	Thr	Pro	Trp	
1235						1240					1245				
Ile	Pro	Phe	Gln	Asn	Cys	Cys	Tyr	Asn	Phe	Ile	Ile	Thr	Lys	Asn	
1250						1255					1260				
Arg	His	Met	Ala	Thr	Thr	Gln	Asp	Glu	Val	His	Thr	Lys	Cys	Gln	
1265						1270					1275				
Lys	Leu	Asn	Pro	Lys	Ser	His	Ile	Leu	Ser	Ile	Arg	Asp	Glu	Lys	
1280						1285					1290				
Glu	Asn	Asn	Phe	Val	Leu	Glu	Gln	Leu	Leu	Tyr	Phe	Asn	Tyr	Met	
1295						1300					1305				
Ala	Ser	Trp	Val	Met	Leu	Gly	Ile	Thr	Tyr	Arg	Asn	Lys	Ser	Leu	
1310						1315					1320				
Met	Trp	Phe	Asp	Lys	Thr	Pro	Leu	Ser	Tyr	Thr	His	Trp	Arg	Ala	
1325						1330					1335				
Gly	Arg	Pro	Thr	Ile	Lys	Asn	Glu	Lys	Phe	Leu	Ala	Gly	Leu	Ser	
1340						1345					1350				
Thr	Asp	Gly	Phe	Trp	Asp	Ile	Gln	Thr	Phe	Lys	Val	Ile	Glu	Glu	
1355						1360					1365				
Ala	Val	Tyr	Phe	His	Gln	His	Ser	Ile	Leu	Ala	Cys	Lys	Ile	Glu	
1370						1375					1380				
Met	Val	Asp	Tyr	Lys	Glu	Glu	Tyr	Asn	Thr	Thr	Leu	Pro	Gln	Phe	
1385						1390					1395				
Met	Pro	Tyr	Glu	Asp	Gly	Ile	Tyr	Ser	Val	Ile	Gln	Lys	Lys	Val	
1400						1405					1410				
Thr	Trp	Tyr	Glu	Ala	Leu	Asn	Met	Cys	Ser	Gln	Ser	Gly	Gly	His	
1415						1420					1425				

Leu	Ala	Ser	Val	His	Asn	Gln	Asn	Gly	Gln	Leu	Phe	Leu	Glu	Asp
1430						1435					1440			
Ile	Val	Lys	Arg	Asp	Gly	Phe	Pro	Leu	Trp	Val	Gly	Leu	Ser	Ser
1445						1450					1455			
His	Asp	Gly	Ser	Glu	Ser	Ser	Phe	Glu	Trp	Ser	Asp	Gly	Ser	Thr
1460						1465					1470			
Phe	Asp	Tyr	Ile	Pro	Trp	Lys	Gly	Gln	Thr	Ser	Pro	Gly	Asn	Cys
1475						1480					1485			
Val	Leu	Leu	Asp	Pro	Lys	Gly	Thr	Trp	Lys	His	Glu	Lys	Cys	Asn
1490						1495					1500			
Ser	Val	Lys	Asp	Gly	Ala	Ile	Cys	Tyr	Lys	Pro	Thr	Lys	Ser	Lys
1505						1510					1515			
Lys	Leu	Ser	Arg	Leu	Thr	Tyr	Ser	Ser	Arg	Cys	Pro	Ala	Ala	Lys
1520						1525					1530			
Glu	Asn	Gly	Ser	Arg	Trp	Ile	Gln	Tyr	Lys	Gly	His	Cys	Tyr	Lys
1535						1540					1545			
Ser	Asp	Gln	Ala	Leu	His	Ser	Phe	Ser	Glu	Ala	Lys	Lys	Leu	Cys
1550						1555					1560			
Ser	Lys	His	Asp	His	Ser	Ala	Thr	Ile	Val	Ser	Ile	Lys	Asp	Glu
1565						1570					1575			
Asp	Glu	Asn	Lys	Phe	Val	Ser	Arg	Leu	Met	Arg	Glu	Asn	Asn	Asn
1580						1585					1590			
Ile	Thr	Met	Arg	Val	Trp	Leu	Gly	Leu	Ser	Gln	His	Ser	Val	Asp
1595						1600					1605			
Gln	Ser	Trp	Ser	Trp	Leu	Asp	Gly	Ser	Glu	Val	Thr	Phe	Val	Lys
1610						1615					1620			
Trp	Glu	Asn	Lys	Ser	Lys	Ser	Gly	Val	Gly	Arg	Cys	Ser	Met	Leu
1625						1630					1635			

Ile Ala Ser Asn Glu Thr Trp Lys Lys Val Glu Cys Glu His Gly
1640 1645 1650

Phe Gly Arg Val Val Cys Lys Val Pro Leu Gly Pro Asp Tyr Thr
1655 1660 1665

Ala Ile Ala Ile Ile Val Ala Thr Leu Ser Ile Leu Val Leu Met
1670 1675 1680

Gly Gly Leu Ile Trp Phe Leu Phe Gln Arg His Arg Leu His Leu
1685 1690 1695

Ala Gly Phe Ser Ser Val Arg Tyr Ala Gln Gly Val Asn Glu Asp
1700 1705 1710

Glu Ile Met Leu Pro Ser Phe His Asp
1715 1720

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<211> 23
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<220>
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<400> 165

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

Thr Glu Asp Lys Leu Trp Lys
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<210> 166
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 166

Cys Glu His His Ser Leu Tyr Gly Ala Ala Arg
1 5 10

<210> 167
<211> 34
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 167

Asp Gly His Gly Thr Ala Ile Ser Asn Ala Ser Asp Val Trp Lys Lys
1 5 10 15

Gly Gly Ser Glu Glu Ser Leu Cys Asp Gln Pro Tyr His Glu Ile Tyr
20 25 30

Thr Arg

<210> 168
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 168

Lys Gly Gly Ser Glu Glu Ser Leu Cys Asp Gln Pro Tyr His Glu Ile
1 5 10 15

Tyr Thr Arg

<210> 169
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 169

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

Thr Arg

<210> 170
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 170

Asp	Gly	His	Gly	Thr	Ala	Ile	Ser	Asn	Ala	Ser	Asp	Val	Trp	Lys
1				5					10					15

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<211> 17
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<220>
<223> Peptide

<400> 171

Trp	Gly	Ile	Cys	Leu	Lys	Pro	Glu	Asn	Gly	Cys	Glu	Asp	Asn	Trp	Glu
1				5					10					15	

Lys

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<212> PRT
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<220>
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<400> 172

Ile	Phe	Trp	Ile	Gly	Leu	Asn	Gln	Leu	Tyr	Ser	Ala	Arg
1				5					10			

<210> 173
<211> 15
<212> PRT
<213> Artificial Sequence

<220>

<223> Peptide

<400> 173

Leu	His	Asn	Glu	Asp	Ile	Lys	Glu	Glu	Val	Trp	Ile	Gly	Leu	Lys
1				5					10					15

<210> 174

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide

<400> 174

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

<210> 175

<211> 23

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide

<400> 175

Tyr	Phe	Trp	Thr	Gly	Leu	Arg	Asp	Val	Asp	Ser	Cys	Gly	Glu	Tyr	Asn
1				5					10					15	

Trp	Ala	Thr	Val	Gly	Gly	Arg
			20			

<210> 176

<211> 11

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide

<400> 176

Ser	Val	Gly	Lys	Trp	Glu	Val	Lys	Asp	Cys	Arg
1				5					10	

<210> 177
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 177

Trp Glu Val Lys Asp Cys Arg Ser Phe Lys
1 5 10

<210> 178
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 178

Ala Leu Ser Ile Cys Lys Lys
1 5

<210> 179
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
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<400> 179

Pro Ala Ser Leu Ser Cys Tyr Lys Val Phe His Ala
1 5 10

<210> 180
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
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<400> 180

Arg Asn Trp Glu Glu Ala Glu Arg
1 5

<210> 181
<211> 33
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 181

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

Val Ser Thr Ile Ile Met Pro Asn Glu Phe Gln Gln Asp Tyr Asp Ile
20 25 30

Arg

<210> 182
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 182

Thr Pro Val Ser Thr Ile Ile Met Pro Asn Glu Phe Gln Gln Asp Tyr
1 5 10 15

Asp Ile Arg

<210> 183
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 183

Pro Trp Arg Arg Gly Trp His Phe Tyr Asp Asp Arg Glu Phe Ile Tyr
1 5 10 15

Leu Arg Pro Phe
20

<210> 184
<211> 8
<212> PRT
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<220>
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<400> 184

Gly Trp His Phe Tyr Asp Asp Arg
1 5

<210> 185
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
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<400> 185

Ile Ser Glu Trp Pro Ile Asp Asp His Phe Thr Tyr Ser Arg
1 5 10

<210> 186
<211> 19
<212> PRT
<213> Artificial Sequence

<220>
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<400> 186

Asp Asp His Phe Thr Tyr Ser Arg Tyr Pro Trp His Arg Phe Pro Val
1 5 10 15

Thr Phe Gly

<210> 187
<211> 30
<212> PRT
<213> Artificial Sequence

<220>

<223> Peptide

<400> 187

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

Trp Leu Ile Asp Leu Gly Lys Pro Thr Asp Cys Ser Thr Lys
20 25 30

<210> 188

<211> 15

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide

<400> 188

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

<210> 189

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide

<400> 189

Tyr Asn Val Ser Ser Leu Glu Lys
1 5

<210> 190

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide

<400> 190

Val Gln Cys Ser Glu Gln Trp Ile Pro Phe Gln Asn
1 5 10

<210> 191
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 191

Arg Glu Leu Thr Tyr Ser Asn Phe His Pro Leu Leu
1 5 10

<210> 192
<211> 39
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 192

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

Arg Ile Pro Glu Asn Phe Phe Glu Glu Glu Ser Arg Tyr His Cys Ala
20 25 30

Leu Ile Leu Asn Leu Gln Lys
35

<210> 193
<211> 11
<212> PRT
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<400> 193

Tyr His Cys Ala Leu Ile Leu Asn Leu Gln Lys
1 5 10

<210> 194
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<213> Artificial Sequence

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<400> 194

Phe	Thr	Ser	Cys	Ser	Glu	Arg	His	Phe	Val	Ser	Leu	Cys	Gln	Lys	Tyr
1				5					10					15	

Ser

<210> 195

<211> 8

<212> PRT

<213> Artificial Sequence

<220>

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<400> 195

His	Phe	Val	Ser	Leu	Cys	Gln	Lys
1				5			

<210> 196

<211> 11

<212> PRT

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<220>

<223> Peptide

<400> 196

Gln	Thr	Leu	Gln	Asn	Ala	Ser	Glu	Thr	Val	Lys
1				5					10	

<210> 197

<211> 12

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide

<400> 197

Thr	Val	Lys	Tyr	Leu	Asn	Asn	Leu	Tyr	Lys	Ile	Ile
1				5					10		

<210> 198
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<400> 198

Thr Leu Thr Trp His Ser Ala Lys
1 5

<210> 199
<211> 14
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<220>
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<400> 199

Asn Arg His Met Ala Thr Thr Gln Asp Glu Val His Thr Lys
1 5 10

<210> 200
<211> 7
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<400> 200

Ser His Ile Leu Ser Ile Arg
1 5

<210> 201
<211> 16
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<213> Artificial Sequence

<220>
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<400> 201

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

<210> 202
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
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<400> 202

Ser Leu Met Trp Phe Asp Lys
1 5

<210> 203
<211> 11
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<213> Artificial Sequence

<220>
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<400> 203

Glu Ala Val Tyr Phe His Gln His Ser Ile Leu
1 5 10

<210> 204
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 204

Lys Lys Leu Ser Arg Leu Thr Tyr Ser Ser
1 5 10

<210> 205
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 205

Asn Gly Ser Arg Trp Ile Gln Tyr Lys Gly His Cys Tyr Lys Ser Asp
Page 73

1 5 10 15

Gln Ala Leu His
20

<210> 206
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 206

His Asp His Ser Ala Thr Ile Val Ser Ile Lys Asp Glu Asp Glu Asn
1 5 10 15

Lys Phe Val Ser Arg
20

<210> 207
<211> 9
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide

<400> 207

Val Glu Cys Glu His Gly Phe Gly Arg
1 5