

Sequence Listing as filed.txt
SEQUENCE LISTING

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<120> Simian Adenovirus Nucleic Acid- and Amino Acid-Sequences, Vectors
Containing Same, and Uses Thereof

<130> SG2541A

<140>

<141> 2010-02-02

<150> PCT/EP2009/000672

<151> 2009-02-02

<150> US 61/172,624

<151> 2009-04-24

<150> US 61/174,852

<151> 2009-05-01

<150> US 61/266,342

<151> 2009-12-03

<160> 65

<170> PatentIn version 3.5

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<213> Human immunodeficiency virus

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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<210> 14
 <211> 440
 <212> PRT
 <213> Adenoviridae - Mastadenovirus
 <400> 14

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

Sequence Listing as filed.txt

Pro Tyr Asp Ala Asp Asn Ala Pro Thr Val Pro Phe Ile Asn Pro Pro
20 25 30

Phe Val Ser Ser Asp Gly Phe Gln Glu Lys Pro Leu Gly Val Leu Ser
35 40 45

Leu Arg Leu Ala Asp Pro Val Thr Thr Lys Asn Gly Glu Ile Thr Leu
50 55 60

Lys Leu Gly Glu Gly Val Asp Leu Asp Asp Ser Gly Lys Leu Ile Ser
65 70 75 80

Lys Asn Ala Thr Lys Ala Thr Ala Pro Leu Ser Ile Ser Asn Ser Thr
85 90 95

Ile Ser Leu Asn Met Asp Ala Pro Leu Tyr Asn Asn Asn Gly Lys Leu
100 105 110

Gly Ile Arg Ile Gly Ala Pro Leu Lys Val Val Asp Leu Leu Asn Thr
115 120 125

Leu Ala Val Ala Tyr Gly Ser Gly Leu Gly Leu Lys Asn Asn Ala Leu
130 135 140

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

Lys Ile Asn Leu Gly Asn Gly Pro Leu Thr Val Ala Ala Asn Arg Leu
165 170 175

Ser Val Thr Cys Lys Arg Gly Leu Tyr Val Thr Thr Thr Gly Asp Ala
180 185 190

Leu Glu Ser Asn Ile Ser Trp Ala Lys Gly Ile Arg Phe Glu Gly Asn
195 200 205

Ala Ile Ala Ala Asn Ile Gly Lys Gly Leu Glu Phe Gly Thr Thr Ser
210 215 220

Ser Glu Ser Asp Val Ser Asn Ala Tyr Pro Ile Gln Val Lys Leu Gly
225 230 235 240

Thr Gly Leu Thr Phe Asp Ser Thr Gly Ala Ile Val Ala Trp Asn Lys
245 250 255

Glu Asp Asp Lys Leu Thr Leu Trp Thr Thr Ala Asp Pro Ser Pro Asn
260 265 270

Cys His Ile Tyr Ser Asp Lys Asp Ala Lys Leu Thr Leu Cys Leu Thr
275 280 285

Sequence Listing as filed.txt

Lys Cys Gly Ser Gln Ile Leu Gly Thr Val Ser Leu Ile Ala Val Asp
 290 295 300
 Thr Gly Ser Leu Asn Pro Ile Thr Gly Gln Val Thr Thr Ala Leu Val
 305 310 315 320
 Ser Leu Lys Phe Asp Ala Asn Gly Val Leu Gln Thr Ser Ser Thr Leu
 325 330 335
 Asp Lys Glu Tyr Trp Asn Phe Arg Lys Gly Asp Val Thr Pro Ala Glu
 340 345 350
 Pro Tyr Thr Asn Ala Ile Gly Phe Met Pro Asn Ile Lys Ala Tyr Pro
 355 360 365
 Lys Asn Thr Asn Ser Ala Ala Lys Ser His Ile Val Gly Lys Val Tyr
 370 375 380
 Leu His Gly Glu Val Ser Lys Pro Leu Asp Leu Ile Ile Thr Phe Asn
 385 390 395 400
 Glu Thr Ser Asn Glu Thr Cys Thr Tyr Cys Ile Asn Phe Gln Trp Gln
 405 410 415
 Trp Gly Thr Asp Lys Tyr Lys Asn Glu Thr Leu Ala Val Ser Ser Phe
 420 425 430
 Thr Phe Ser Tyr Ile Ala Gln Glu
 435 440
 <210> 15
 <211> 443
 <212> PRT
 <213> Adenoviridae - Mastadenovirus
 <400> 15
 Met Ser Lys Lys Arg Val Arg Val Asp Asp Asp Phe Asp Pro Val Tyr
 1 5 10 15
 Pro Tyr Asp Ala Asp Asn Ala Pro Thr Val Pro Phe Ile Asn Pro Pro
 20 25 30
 Phe Val Ser Ser Asp Gly Phe Gln Glu Lys Pro Leu Gly Val Leu Ser
 35 40 45
 Leu Arg Leu Ala Asp Pro Val Thr Thr Lys Asn Gly Glu Ile Thr Leu
 50 55 60
 Lys Leu Gly Glu Gly Val Asp Leu Asp Asp Ser Gly Lys Leu Ile Ser
 65 70 75 80

Sequence Listing as filed.txt

Lys Asn Ala Thr Lys Ala Thr Ala Pro Leu Ser Ile Ser Asn Ser Thr
85 90 95

Ile Ser Leu Asn Met Ala Ala Pro Phe Tyr Asn Asn Asn Gly Thr Leu
100 105 110

Ser Leu Asn Val Ser Thr Pro Leu Ala Val Phe Pro Thr Phe Asn Thr
115 120 125

Leu Gly Ile Ser Leu Gly Asn Gly Leu Gln Thr Ser Asn Lys Leu Leu
130 135 140

Ala Val Gln Leu Thr His Pro Leu Thr Phe Ser Ser Asn Ser Ile Thr
145 150 155 160

Val Lys Thr Asp Lys Gly Leu Tyr Ile Asn Ser Ser Gly Asn Arg Gly
165 170 175

Leu Glu Ala Asn Ile Ser Leu Lys Arg Gly Leu Ile Phe Asp Gly Asn
180 185 190

Ala Ile Ala Thr Tyr Leu Gly Ser Gly Leu Asp Tyr Gly Ser Tyr Asp
195 200 205

Ser Asp Gly Lys Thr Arg Pro Ile Ile Thr Lys Ile Gly Ala Gly Leu
210 215 220

Asn Phe Asp Ser Asn Asn Ala Met Ala Val Lys Leu Gly Thr Gly Leu
225 230 235 240

Ser Phe Asp Ser Ala Gly Ala Leu Thr Ala Gly Asn Lys Glu Asp Asp
245 250 255

Lys Leu Thr Leu Trp Thr Thr Pro Asp Pro Ser Pro Asn Cys Gln Leu
260 265 270

Leu Ser Asp Arg Asp Ala Lys Phe Thr Leu Cys Leu Thr Lys Cys Gly
275 280 285

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

Ala Leu Asn Pro Ile Asn Asp Thr Val Lys Ser Ala Ile Val Phe Leu
305 310 315 320

Arg Phe Asp Ser Asp Gly Val Leu Met Ser Asn Ser Ser Met Val Gly
325 330 335

Asp Tyr Trp Asn Phe Arg Glu Gly Gln Thr Thr Gln Ser Val Ala Tyr
340 345 350

Sequence Listing as filed.txt

Thr Asn Ala Val Gly Phe Met Pro Asn Leu Gly Ala Tyr Pro Lys Thr
355 360 365

Gln Ser Lys Thr Pro Lys Asn Ser Ile Val Ser Gln Val Tyr Leu Asn
370 375 380

Gly Glu Thr Thr Met Pro Met Thr Leu Thr Ile Thr Phe Asn Gly Thr
385 390 395 400

Asp Glu Lys Asp Thr Thr Pro Val Ser Thr Tyr Ser Met Thr Phe Thr
405 410 415

Trp Gln Trp Thr Gly Asp Tyr Lys Asp Lys Asn Ile Thr Phe Ala Thr
420 425 430

Asn Ser Phe Thr Phe Ser Tyr Met Ala Gln Glu
435 440

<210> 16

<211> 425

<212> PRT

<213> Adenoviridae - Mastadenovirus

<400> 16

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

Pro Tyr Asp Ala Asp Asn Ala Pro Thr Val Pro Phe Ile Asn Pro Pro
20 25 30

Phe Val Ser Ser Asp Gly Phe Gln Glu Lys Pro Leu Gly Val Leu Ser
35 40 45

Leu Arg Leu Ala Asp Pro Val Thr Thr Lys Asn Gly Glu Ile Thr Leu
50 55 60

Lys Leu Gly Glu Gly Val Asp Leu Asp Ser Ser Gly Lys Leu Ile Ser
65 70 75 80

Asn Thr Ala Thr Lys Ala Ala Ala Pro Leu Ser Phe Ser Asn Asn Thr
85 90 95

Ile Ser Leu Asn Met Asp His Pro Phe Tyr Thr Lys Asp Gly Lys Leu
100 105 110

Ala Leu Gln Val Ser Pro Pro Leu Asn Ile Leu Arg Thr Ser Ile Leu
115 120 125

Asn Thr Leu Ala Leu Gly Phe Gly Ser Gly Leu Gly Leu Arg Gly Ser
130 135 140

Ala Leu Ala Val Gln Leu Val Ser Pro Leu Thr Phe Asp Thr Asp Gly

Sequence Listing as filed.txt

Asn Ile Lys Leu Thr 165 Leu Asp Arg Gly Leu His Val Thr Thr Gly Asp 175
Ala Ile Glu Ser 180 Asn Ile Ser Trp Ala 185 Lys Gly Leu Lys Phe Glu Asp 190
Gly Ala Ile 195 Ala Thr Asn Ile Gly 200 Asn Gly Leu Glu Phe Gly Ser Ser 205
Ser Thr Glu Thr Gly Val 210 Asp 215 Asp Ala Tyr Pro Ile 220 Gln Val Lys Leu
Gly Ser Gly Leu Ser 225 Phe 230 Asp Ser Thr Gly Ala 235 Ile Met Ala Gly Asn 240
Lys Glu Asp Asp 245 Lys Leu Thr Leu Trp Thr 250 Thr Pro Asp Pro Ser 255 Pro
Asn Cys Gln Ile 260 Leu Ala Glu Asn Asp 265 Ala Lys Leu Thr Leu Cys Leu 270
Thr Lys Cys 275 Gly Ser Gln Ile Leu 280 Ala Thr Val Ser Val 285 Leu Val Val
Gly Ser 290 Gly Asn Leu Asn Pro 295 Ile Thr Gly Thr Val 300 Ser Ser Ala Gln
Val Phe Leu Arg Phe 305 Asp 310 Ala Asn Gly Val Leu 315 Leu Thr Glu His Ser 320
Thr Leu Lys Lys 325 Tyr Trp Gly Tyr Arg Gln 330 Gly Asp Ser Ile Asp 335 Gly
Thr Pro Tyr Val 340 Asn Ala Val Gly Phe 345 Met Pro Asn Leu Lys 350 Ala Tyr
Pro Lys 355 Ser Gln Ser Ser Thr Thr 360 Lys Asn Asn Ile Val 365 Gly Gln Val
Tyr Met 370 Asn Gly Asp Val Ser 375 Lys Pro Met Leu Leu 380 Thr Ile Thr Leu
Asn Gly Thr Asp Asp 385 Ser 390 Asn Ser Thr Tyr Ser 395 Met Ser Phe Ser Tyr 400
Thr Trp Thr Asn 405 Gly Ser Tyr Val Gly Ala 410 Thr Phe Gly Ala Asn 415 Ser
Tyr Thr Phe Ser Tyr Ile Ala Gln Glu

420

Sequence Listing as filed.txt
425

<210> 17
 <211> 425
 <212> PRT
 <213> Adenoviridae - Mastadenovirus

<400> 17

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

Pro Tyr Asp Ala Asp Asn Ala Pro Thr Val Pro Phe Ile Asn Pro Pro
 20 25 30

Phe Val Ser Ser Asp Gly Phe Gln Glu Lys Pro Leu Gly Val Leu Ser
 35 40 45

Leu Arg Leu Ala Asp Pro Val Thr Thr Lys Asn Gly Glu Ile Thr Leu
 50 55 60

Lys Leu Gly Glu Gly Leu Asp Leu Asp Ser Ser Gly Lys Leu Ile Ser
 65 70 75 80

Asn Thr Ala Thr Lys Ala Ala Ala Pro Leu Ser Phe Ser Asn Asn Thr
 85 90 95

Ile Ser Leu Asn Met Asp His Pro Phe Tyr Thr Lys Asp Gly Lys Leu
 100 105 110

Ser Leu Gln Val Ser Pro Pro Leu Asn Ile Leu Arg Thr Ser Ile Leu
 115 120 125

Asn Thr Leu Ala Leu Gly Phe Gly Ser Gly Leu Gly Leu Arg Gly Ser
 130 135 140

Ala Leu Ala Val Gln Leu Val Ser Pro Leu Thr Phe Asp Thr Asp Gly
 145 150 155 160

Asn Ile Lys Leu Thr Leu Asp Arg Gly Leu His Val Thr Thr Gly Asp
 165 170 175

Ala Ile Glu Ser Asn Ile Ser Trp Ala Lys Gly Leu Lys Phe Glu Asp
 180 185 190

Gly Ala Ile Ala Thr Asn Ile Gly Asn Gly Leu Glu Phe Gly Ser Ser
 195 200 205

Ser Thr Glu Thr Gly Val Asp Asp Ala Tyr Pro Ile Gln Val Lys Leu
 210 215 220

Gly Ser Gly Leu Ser Phe Asp Ser Thr Gly Ala Ile Met Ala Gly Asn
 225 230 235 240

Sequence Listing as filed.txt

Lys Glu Asp Asp Lys Leu Thr Leu Trp Thr Thr Pro Asp Pro Ser Pro
245 250 255

Asn Cys Gln Ile Leu Ala Glu Asn Asp Ala Lys Leu Thr Leu Cys Leu
260 265 270

Thr Lys Cys Gly Ser Gln Ile Leu Ala Thr Val Ser Val Leu Val Val
275 280 285

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

Val Phe Leu Arg Phe Asp Ala Asn Gly Val Leu Leu Thr Glu His Ser
305 310 315 320

Thr Leu Lys Lys Tyr Trp Gly Tyr Arg Gln Gly Asp Ser Ile Asp Gly
325 330 335

Thr Pro Tyr Thr Asn Ala Val Gly Phe Met Pro Asn Leu Lys Ala Tyr
340 345 350

Pro Lys Ser Gln Ser Ser Thr Thr Lys Asn Asn Ile Val Gly Gln Val
355 360 365

Tyr Met Asn Gly Asp Val Ser Lys Pro Met Leu Leu Thr Ile Thr Leu
370 375 380

Asn Gly Thr Asp Asp Ser Asn Ser Thr Tyr Ser Met Ser Phe Ser Tyr
385 390 395 400

Thr Trp Thr Asn Gly Ser Tyr Val Gly Ala Thr Phe Gly Ala Asn Ser
405 410 415

Tyr Thr Phe Ser Tyr Ile Ala Gln Glu
420 425

<210> 18
<211> 442
<212> PRT
<213> Adenoviridae - Mastadenovirus
<400> 18

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

Pro Tyr Asp Ala Asp Asn Ala Pro Thr Val Pro Phe Ile Asn Pro Pro
20 25 30

Phe Val Ser Ser Asp Gly Phe Gln Glu Lys Pro Leu Gly Val Leu Ser
35 40 45

Sequence Listing as filed.txt

Leu Arg Leu Ala Asp Pro Val Thr Thr Lys Asn Gly Ala Val Pro Leu
 50 55 60
 Lys Leu Gly Glu Gly Val Asp Leu Asp Asp Ser Gly Lys Leu Ile Ser
 65 70 75 80
 Lys Lys Ser Thr Lys Ala Asn Ser Pro Leu Ser Ile Ser Asn Asn Thr
 85 90 95
 Ile Ser Leu Asn Met Asp Thr Pro Phe Tyr Thr Lys Asp Gly Lys Leu
 100 105 110
 Thr Met Gln Val Thr Ala Pro Leu Lys Leu Ala Asn Thr Ala Ile Leu
 115 120 125
 Asn Thr Leu Ala Met Ala Tyr Gly Asn Gly Leu Gly Leu Asn Asn Asn
 130 135 140
 Ala Leu Thr Val Gln Val Thr Ser Pro Leu Thr Phe Asp Asn Ser Lys
 145 150 155 160
 Val Lys Ile Asn Leu Gly Asn Gly Pro Leu Met Val Ser Ala Asn Lys
 165 170 175
 Leu Ser Ile Asn Cys Leu Arg Gly Leu Tyr Val Ala Pro Asn Asn Thr
 180 185 190
 Gly Leu Glu Thr Asn Ile Ser Trp Ala Asn Ala Met Arg Phe Glu Gly
 195 200 205
 Asn Ala Met Ala Val Tyr Ile Asp Thr Asn Lys Gly Leu Gln Phe Gly
 210 215 220
 Thr Thr Ser Thr Glu Thr Gly Val Thr Asn Ala Tyr Pro Ile Gln Val
 225 230 235 240
 Lys Leu Gly Ala Gly Leu Ala Phe Asp Ser Thr Gly Ala Ile Val Ala
 245 250 255
 Trp Asn Lys Glu Asn Asp Ser Leu Thr Leu Trp Thr Thr Pro Asp Pro
 260 265 270
 Ser Pro Asn Cys Lys Ile Ala Ser Glu Lys Asp Ala Lys Leu Thr Leu
 275 280 285
 Cys Leu Thr Lys Cys Gly Ser Gln Ile Leu Gly Thr Val Ser Leu Leu
 290 295 300
 Ala Val Ser Gly Ser Leu Ala Pro Ile Thr Gly Ala Val Ser Thr Ala
 305 310 315 320

Sequence Listing as filed.txt

Leu Val Ser Leu Lys Phe Asn Ala Asn Gly Ala Leu Leu Asp Lys Ser
325 330 335

Thr Leu Asn Lys Glu Tyr Trp Asn Tyr Arg Gln Gly Asp Leu Ile Pro
340 345 350

Gly Thr Pro Tyr Thr His Ala Val Gly Phe Met Pro Asn Lys Lys Ala
355 360 365

Tyr Pro Lys Asn Thr Thr Ala Ala Ser Lys Ser His Ile Val Gly Asp
370 375 380

Val Tyr Leu Asp Gly Asp Ala Asp Lys Pro Leu Ser Leu Ile Ile Thr
385 390 395 400

Phe Asn Glu Thr Asp Asp Glu Thr Cys Asp Tyr Cys Ile Asn Phe Gln
405 410 415

Trp Lys Trp Gly Ala Asp Gln Tyr Lys Asp Lys Thr Leu Ala Thr Ser
420 425 430

Ser Phe Thr Phe Ser Tyr Ile Ala Gln Glu
435 440

<210> 19
<211> 577
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 19

Met Lys Arg Ala Lys Thr Ser Asp Glu Thr Phe Asn Pro Val Tyr Pro
1 5 10 15

Tyr Asp Thr Glu Asn Gly Pro Pro Ser Val Pro Phe Leu Thr Pro Pro
20 25 30

Phe Val Ser Pro Asp Gly Phe Gln Glu Ser Pro Pro Gly Val Leu Ser
35 40 45

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

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

Gln Asp Val Thr Thr Val Thr Pro Pro Leu Lys Lys Thr Lys Thr Asn
85 90 95

Leu Ser Leu Gln Thr Ser Ala Pro Leu Thr Val Ser Ser Gly Ser Leu
100 105 110

Sequence Listing as filed.txt

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

Met Gln Ser Gln Ala Pro Leu Thr Val Gln Asp Ala Lys Leu Gly Leu
130 135 140

Ala Thr Gln Gly Pro Leu Thr Val Ser Glu Gly Lys Leu Thr Leu Gln
145 150 155 160

Thr Ser Ala Pro Leu Thr Ala Ala Asp Ser Ser Thr Leu Thr Val Ser
165 170 175

Ala Thr Pro Pro Leu Ser Thr Ser Asn Gly Ser Leu Ser Ile Asp Met
180 185 190

Gln Ala Pro Ile Tyr Thr Thr Asn Gly Lys Leu Ala Leu Asn Ile Gly
195 200 205

Ala Pro Leu His Val Val Asp Thr Leu Asn Ala Leu Thr Val Val Thr
210 215 220

Gly Gln Gly Leu Thr Ile Asn Gly Arg Ala Leu Gln Thr Arg Val Thr
225 230 235 240

Gly Ala Leu Ser Tyr Asp Thr Glu Gly Asn Ile Gln Leu Gln Ala Gly
245 250 255

Gly Gly Met Arg Ile Asp Asn Asn Gly Gln Leu Ile Leu Asn Val Ala
260 265 270

Tyr Pro Phe Asp Ala Gln Asn Asn Leu Ser Leu Arg Leu Gly Gln Gly
275 280 285

Pro Leu Ile Val Asn Ser Ala His Asn Leu Asp Leu Asn Leu Asn Arg
290 295 300

Gly Leu Tyr Leu Phe Thr Ser Gly Asn Thr Lys Lys Leu Glu Val Asn
305 310 315 320

Ile Lys Thr Ala Lys Gly Leu Phe Tyr Asp Gly Thr Ala Ile Ala Ile
325 330 335

Asn Ala Gly Asp Gly Leu Gln Phe Gly Ser Gly Ser Asp Thr Asn Pro
340 345 350

Leu Gln Thr Lys Leu Gly Leu Gly Leu Glu Tyr Asp Ser Asn Lys Ala
355 360 365

Ile Ile Thr Lys Leu Gly Thr Gly Leu Ser Phe Asp Asn Thr Gly Ala
370 375 380

Sequence Listing as filed.txt

Ile Thr Val Gly Asn Lys Asn Asp Asp Lys Leu Thr Leu Trp Thr Thr
 385 390 395 400

Pro Asp Pro Ser Pro Asn Cys Arg Ile Asn Ser Glu Lys Asp Ala Lys
 405 410 415

Leu Thr Leu Val Leu Thr Lys Cys Gly Ser Gln Val Leu Ala Ser Val
 420 425 430

Ser Val Leu Ser Val Lys Gly Ser Leu Ala Pro Ile Ser Gly Thr Val
 435 440 445

Thr Ser Ala Gln Ile Val Leu Arg Phe Asp Glu Asn Gly Val Leu Leu
 450 455 460

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

Ser Thr Glu Gly Thr Ala Tyr Thr Asn Ala Val Gly Phe Met Pro Asn
 485 490 495

Leu Thr Ala Tyr Pro Lys Thr Gln Ser Gln Thr Ala Lys Ser Asn Ile
 500 505 510

Val Ser Gln Val Tyr Leu Asn Gly Asp Lys Thr Lys Pro Met Thr Leu
 515 520 525

Thr Ile Thr Leu Asn Gly Thr Asn Glu Thr Gly Asp Ala Thr Val Ser
 530 535 540

Thr Tyr Ser Met Ser Phe Ser Trp Asn Trp Asn Gly Ser Asn Tyr Ile
 545 550 555 560

Asn Asp Thr Phe Gln Thr Asn Ser Phe Thr Phe Ser Tyr Ile Ala Gln
 565 570 575

Glu

<210> 20
 <211> 937
 <212> PRT
 <213> Adenoviridae - Mastadenovirus

<400> 20

Met Ala Thr Pro Ser Met Leu Pro Gln Trp Ala Tyr Met His Ile Ala
 1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
 20 25 30

Arg Ala Thr Asp Thr Tyr Phe Ser Leu Gly Asn Lys Phe Arg Asn Pro

Sequence Listing as filed.txt

35

40

45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Val Pro Val Asp Arg Glu Asp Asn Thr Tyr Ser Tyr
65 70 75 80

Lys Val Arg Tyr Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ser Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Thr Ser Gln Trp Ile Thr Lys Asp Asn Gly Thr Asp Lys
130 135 140

Thr Tyr Ser Phe Gly Asn Ala Pro Val Arg Gly Leu Asp Ile Thr Glu
145 150 155 160

Glu Gly Leu Gln Ile Gly Pro Asp Glu Ser Gly Gly Glu Ser Lys Lys
165 170 175

Ile Phe Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln Leu Gly Asp Glu
180 185 190

Glu Trp His Asp Thr Ile Gly Ala Glu Asp Lys Tyr Gly Gly Arg Ala
195 200 205

Leu Lys Pro Ala Thr Asn Met Lys Pro Cys Tyr Gly Ser Phe Ala Lys
210 215 220

Pro Thr Asn Ala Lys Gly Gly Gln Ala Lys Ser Arg Thr Lys Asp Asp
225 230 235 240

Gly Thr Thr Glu Pro Asp Ile Asp Met Ala Phe Phe Asp Asp Arg Ser
245 250 255

Gln Gln Ala Ser Phe Ser Pro Glu Leu Val Leu Tyr Thr Glu Asn Val
260 265 270

Asp Leu Asp Thr Pro Asp Thr His Ile Ile Tyr Lys Pro Gly Thr Asp
275 280 285

Glu Thr Ser Ser Ser Phe Asn Leu Gly Gln Gln Ser Met Pro Asn Arg
290 295 300

Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr

Sequence Listing as filed.txt
 305 310 315 320

Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln Leu
 325 330 335

Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln
 340 345 350

Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg Tyr Phe Ser Met Trp
 355 360 365

Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile Glu Asn
 370 375 380

His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Asn Gly
 385 390 395 400

Val Gly Phe Thr Asp Thr Phe Gln Gly Ile Lys Val Lys Thr Thr Asn
 405 410 415

Asn Gly Thr Ala Asn Ala Thr Glu Trp Glu Ser Asp Thr Ser Val Asn
 420 425 430

Asn Ala Asn Glu Ile Ala Lys Gly Asn Pro Phe Ala Met Glu Ile Asn
 435 440 445

Ile Gln Ala Asn Leu Trp Arg Asn Phe Leu Tyr Ala Asn Val Ala Leu
 450 455 460

Tyr Leu Pro Asp Ser Tyr Lys Tyr Thr Pro Ala Asn Ile Thr Leu Pro
 465 470 475 480

Thr Asn Thr Asn Thr Tyr Asp Tyr Met Asn Gly Arg Val Val Ala Pro
 485 490 495

Ser Leu Val Asp Ala Tyr Ile Asn Ile Gly Ala Arg Trp Ser Leu Asp
 500 505 510

Pro Met Asp Asn Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu
 515 520 525

Arg Tyr Arg Ser Met Leu Leu Gly Asn Gly Arg Tyr Val Pro Phe His
 530 535 540

Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys Ser Leu Leu Leu Leu
 545 550 555 560

Pro Gly Ser Tyr Thr Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met
 565 570 575

Ile Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg Thr Asp Gly Ala Ser

Sequence Listing as filed.txt

580

585

590

Ile Ala Phe Thr Ser Ile Asn Leu Tyr Ala Thr Phe Phe Pro Met Ala
595 600 605

His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn
610 615 620

Asp Gln Ser Phe Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro
625 630 635 640

Ile Pro Ala Asn Ala Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn
645 650 655

Trp Ala Ala Phe Arg Gly Trp Ser Phe Thr Arg Leu Lys Thr Arg Glu
660 665 670

Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly
675 680 685

Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys
690 695 700

Lys Val Ser Ile Thr Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp
705 710 715 720

Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys Arg Thr Val Asp Gly
725 730 735

Glu Gly Tyr Asn Val Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu
740 745 750

Val Gln Met Leu Ala His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val
755 760 765

Pro Glu Gly Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln
770 775 780

Pro Met Ser Arg Gln Val Val Asp Glu Val Asn Tyr Lys Asp Tyr Gln
785 790 795 800

Ala Val Thr Leu Ala Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr
805 810 815

Leu Ala Pro Thr Met Arg Gln Gly Gln Pro Tyr Pro Ala Asn Tyr Pro
820 825 830

Tyr Pro Leu Ile Gly Lys Ser Ala Val Ala Ser Val Thr Gln Lys Lys
835 840 845

Phe Leu Cys Asp Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe

850

Sequence Listing as filed.txt
855 860

Met Ser Met Gly Ala Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala
865 870 875 880

Asn Ser Ala His Ala Leu Asp Met Asn Phe Glu Val Asp Pro Met Asp
885 890 895

Glu Ser Thr Leu Leu Tyr Val Val Phe Glu Val Phe Asp Val Val Arg
900 905 910

Val His Gln Pro His Arg Gly Val Ile Glu Ala Val Tyr Leu Arg Thr
915 920 925

Pro Phe Ser Ala Gly Asn Ala Thr Thr
930 935

<210> 21
<211> 937
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 21

Met Ala Thr Pro Ser Met Leu Pro Gln Trp Ala Tyr Met His Ile Ala
1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
20 25 30

Arg Ala Thr Asp Thr Tyr Phe Ser Leu Gly Asn Lys Phe Arg Asn Pro
35 40 45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Val Pro Val Asp Gly Glu Asp Asn Thr Tyr Ser Tyr
65 70 75 80

Lys Val Arg Tyr Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ala Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Thr Ser Gln Trp Ile Thr Lys Asp Asn Gly Thr Asp Lys
130 135 140

Thr Tyr Ser Phe Gly Asn Ala Pro Val Arg Gly Leu Asp Ile Thr Glu
145 150 155 160

Sequence Listing as filed.txt

Glu Gly Leu Gln Ile Arg Thr Asp Glu Ser Gly Gly Glu Ser Lys Lys
165 170 175

Ile Phe Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln Leu Gly Asp Glu
180 185 190

Glu Trp His Asp Thr Ile Gly Ala Glu Asp Lys Tyr Gly Gly Arg Ala
195 200 205

Leu Lys Pro Ala Thr Asn Met Lys Pro Cys Tyr Gly Ser Phe Ala Lys
210 215 220

Pro Thr Asn Ala Lys Gly Gly Gln Ala Lys Ser Arg Thr Lys Asp Asp
225 230 235 240

Gly Thr Thr Glu Pro Asp Ile Asp Met Ala Phe Phe Asp Asp Arg Ser
245 250 255

Gln Gln Ala Ser Phe Ser Pro Glu Leu Val Leu Tyr Thr Glu Asn Val
260 265 270

Asp Leu Asp Thr Pro Asp Thr His Ile Ile Tyr Lys Pro Gly Thr Asp
275 280 285

Glu Thr Ser Ser Ser Phe Asn Leu Gly Gln Gln Ser Met Pro Asn Arg
290 295 300

Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr
305 310 315 320

Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln Leu
325 330 335

Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln
340 345 350

Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg Tyr Phe Ser Met Trp
355 360 365

Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile Glu Asn
370 375 380

His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Asn Gly
385 390 395 400

Val Gly Phe Thr Asp Thr Phe Gln Gly Ile Lys Val Lys Thr Thr Asn
405 410 415

Asn Gly Thr Ala Asn Ala Thr Glu Trp Glu Ser Asp Thr Ser Val Asn
420 425 430

Sequence Listing as filed.txt

Asn Ala Asn Glu Ile Ala Lys Gly Asn Pro Phe Ala Met Glu Ile Asn
 435 440 445
 Ile Gln Ala Asn Leu Trp Arg Asn Phe Leu Tyr Ala Asn Val Ala Leu
 450 455 460
 Tyr Leu Pro Asp Ser Tyr Lys Tyr Thr Pro Ala Asn Ile Thr Leu Pro
 465 470 475 480
 Thr Asn Thr Asn Thr Tyr Asp Tyr Met Asn Gly Arg Val Val Ala Pro
 485 490 495
 Ser Leu Val Asp Ala Tyr Ile Asn Ile Gly Ala Arg Trp Ser Leu Asp
 500 505 510
 Pro Met Asp Asn Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu
 515 520 525
 Arg Tyr Arg Ser Met Leu Leu Gly Asn Gly Arg Tyr Val Pro Phe His
 530 535 540
 Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys Ser Leu Leu Leu Leu
 545 550 555 560
 Pro Gly Ser Tyr Thr Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met
 565 570 575
 Ile Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg Thr Asp Gly Ala Ser
 580 585 590
 Ile Ala Phe Thr Ser Ile Asn Leu Tyr Ala Thr Phe Phe Pro Met Ala
 595 600 605
 His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn
 610 615 620
 Asp Gln Ser Phe Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro
 625 630 635 640
 Ile Pro Ala Asn Ala Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn
 645 650 655
 Trp Ala Ala Phe Arg Gly Trp Ser Phe Thr Arg Leu Lys Thr Arg Glu
 660 665 670
 Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly
 675 680 685
 Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys
 690 695 700

Sequence Listing as filed.txt

Lys Val Ser Ile Thr Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp
 705 710 715 720
 Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys Arg Thr Val Asp Gly
 725 730 735
 Glu Gly Tyr Asn Val Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu
 740 745 750
 Val Gln Met Leu Ala His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val
 755 760 765
 Pro Glu Gly Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln
 770 775 780
 Pro Met Ser Arg Gln Val Val Asp Glu Val Asn Tyr Lys Asp Tyr Gln
 785 790 795 800
 Ala Val Thr Leu Ala Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr
 805 810 815
 Leu Ala Pro Thr Met Arg Gln Gly Gln Pro Tyr Pro Ala Asn Tyr Pro
 820 825 830
 Tyr Pro Leu Ile Gly Lys Ser Ala Val Ala Ser Val Thr Gln Lys Lys
 835 840 845
 Phe Leu Cys Asp Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe
 850 855 860
 Met Ser Met Gly Ala Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala
 865 870 875 880
 Asn Ser Ala His Ala Leu Asp Met Asn Phe Glu Val Asp Pro Met Asp
 885 890 895
 Glu Ser Thr Leu Leu Tyr Val Val Phe Glu Val Phe Asp Val Val Arg
 900 905 910
 Val His Gln Pro His Arg Gly Val Ile Lys Ala Val Tyr Leu Arg Thr
 915 920 925
 Pro Phe Ser Ala Gly Asn Ala Thr Thr
 930 935

<210> 22
 <211> 937
 <212> PRT
 <213> Adenoviridae - Mastadenovirus
 <400> 22

Sequence Listing as filed.txt

Met Ala Thr Pro Ser Met Leu Pro Gln Trp Ala Tyr Met His Ile Ala
1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
20 25 30

Arg Ala Thr Asp Thr Tyr Phe Ser Leu Gly Asn Lys Phe Arg Asn Pro
35 40 45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Val Pro Val Asp Arg Glu Asp Asn Thr Tyr Ser Tyr
65 70 75 80

Lys Val Arg Tyr Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ser Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Thr Ser Gln Trp Ile Thr Lys Asp Asn Gly Thr Asp Lys
130 135 140

Thr Tyr Ser Phe Gly Asn Ala Pro Val Arg Gly Leu Asp Ile Thr Glu
145 150 155 160

Glu Gly Leu Gln Ile Gly Thr Asp Glu Ser Gly Gly Glu Ser Lys Lys
165 170 175

Ile Phe Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln Leu Gly Asp Glu
180 185 190

Glu Trp His Asp Thr Ile Gly Ala Glu Asp Lys Tyr Gly Gly Arg Ala
195 200 205

Leu Lys Pro Ala Thr Asn Met Lys Pro Cys Tyr Gly Ser Phe Ala Lys
210 215 220

Pro Thr Asn Ala Lys Gly Gly Gln Ala Lys Ser Arg Thr Lys Asp Asp
225 230 235 240

Gly Thr Thr Glu Pro Asp Ile Asp Met Ala Phe Phe Asp Asp Arg Ser
245 250 255

Gln Gln Ala Ser Phe Ser Pro Glu Leu Val Leu Tyr Thr Glu Asn Val
260 265 270

Sequence Listing as filed.txt

Asp Leu Asp Thr Pro Asp Thr His Ile Ile Tyr Lys Pro Gly Thr Asp
 275 280 285
 Glu Thr Ser Ser Ser Phe Asn Leu Gly Gln Gln Ser Met Pro Asn Arg
 290 295 300
 Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr
 305 310 315 320
 Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln Leu
 325 330 335
 Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln
 340 345 350
 Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg Tyr Phe Ser Met Trp
 355 360 365
 Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile Glu Asn
 370 375 380
 His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Asn Gly
 385 390 395 400
 Val Gly Phe Thr Asp Thr Phe Gln Gly Ile Lys Val Lys Thr Thr Asn
 405 410 415
 Asn Gly Thr Ala Asn Ala Thr Glu Trp Glu Ser Asp Thr Ser Val Asn
 420 425 430
 Asn Ala Asn Glu Ile Ala Lys Gly Asn Pro Phe Ala Met Glu Ile Asn
 435 440 445
 Ile Gln Ala Asn Leu Trp Arg Asn Phe Leu Tyr Ala Asn Val Ala Leu
 450 455 460
 Tyr Leu Pro Asp Ser Tyr Lys Tyr Thr Pro Ala Asn Ile Thr Leu Pro
 465 470 475 480
 Thr Asn Thr Asn Thr Tyr Asp Tyr Met Asn Gly Arg Val Val Ala Pro
 485 490 495
 Ser Leu Val Asp Ala Tyr Ile Asn Ile Gly Ala Arg Trp Ser Leu Asp
 500 505 510
 Pro Met Asp Asn Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu
 515 520 525
 Arg Tyr Arg Ser Met Leu Leu Gly Asn Gly Arg Tyr Val Pro Phe His
 530 535 540

Sequence Listing as filed.txt

Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys Ser Leu Leu Leu Leu
545 550 555 560

Pro Gly Ser Tyr Thr Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met
565 570 575

Ile Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg Thr Asp Gly Ala Ser
580 585 590

Ile Ala Phe Thr Ser Ile Asn Leu Tyr Ala Thr Phe Phe Pro Met Ala
595 600 605

His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn
610 615 620

Asp Gln Ser Phe Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro
625 630 635 640

Ile Pro Ala Asn Ala Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn
645 650 655

Trp Ala Ala Phe Arg Gly Trp Ser Phe Thr Arg Leu Lys Thr Arg Glu
660 665 670

Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly
675 680 685

Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys
690 695 700

Lys Val Ser Ile Thr Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp
705 710 715 720

Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys Arg Thr Val Asp Gly
725 730 735

Glu Gly Tyr Asn Val Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu
740 745 750

Val Gln Met Leu Ala His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val
755 760 765

Pro Glu Gly Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln
770 775 780

Pro Met Ser Arg Gln Val Val Asp Glu Val Asn Tyr Lys Asp Tyr Gln
785 790 795 800

Ala Val Thr Leu Ala Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr
805 810 815

Sequence Listing as filed.txt

Leu Ala Pro Thr Met Arg Gln Gly Gln Pro Tyr Pro Ala Asn Tyr Pro
820 825 830

Tyr Pro Leu Ile Gly Lys Ser Ala Val Ala Ser Val Thr Gln Lys Lys
835 840 845

Phe Leu Cys Asp Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe
850 855 860

Met Ser Met Gly Ala Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala
865 870 875 880

Asn Ser Ala His Ala Leu Asp Met Asn Phe Glu Val Asp Pro Met Asp
885 890 895

Glu Ser Thr Leu Leu Tyr Val Val Phe Glu Val Phe Asp Val Val Arg
900 905 910

Val His Gln Pro His Arg Gly Val Ile Glu Ala Val Tyr Leu Arg Thr
915 920 925

Pro Phe Ser Ala Gly Asn Ala Thr Thr
930 935

<210> 23
<211> 937
<212> PRT
<213> Adenoviridae - Mastadenovirus

<220>
<221> misc_feature
<222> (296)..(296)
<223> xaa can be any naturally occurring amino acid

<400> 23

Met Ala Thr Pro Ser Met Leu Pro Gln Trp Ala Tyr Met His Ile Ala
1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
20 25 30

Arg Ala Thr Asp Thr Tyr Phe Ser Leu Gly Asn Lys Phe Arg Asn Pro
35 40 45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Val Pro Val Asp Arg Glu Asp Asn Thr Tyr Ser Tyr
65 70 75 80

Lys Val Arg Tyr Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

Sequence Listing as filed.txt

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ser Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Thr Ser Gln Trp Ile Thr Lys Asp Asn Gly Thr Asp Lys
130 135 140

Thr Tyr Ser Phe Gly Asn Ala Pro Val Arg Gly Leu Asp Ile Thr Glu
145 150 155 160

Glu Gly Leu Gln Ile Gly Thr Asp Glu Ser Gly Gly Lys Ser Lys Lys
165 170 175

Ile Phe Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln Leu Gly Asp Glu
180 185 190

Glu Trp His Asp Thr Ile Gly Ala Glu Asp Lys Tyr Gly Gly Arg Ala
195 200 205

Leu Lys Pro Ala Thr Asn Met Lys Pro Cys Tyr Gly Ser Phe Ala Lys
210 215 220

Pro Thr Asn Ala Lys Gly Gly Gln Ala Lys Ser Arg Thr Lys Asp Asp
225 230 235 240

Gly Thr Thr Glu Pro Asp Ile Asp Met Ala Phe Phe Asp Asp Arg Ser
245 250 255

Gln Gln Ala Ser Phe Ser Pro Glu Leu Val Leu Tyr Thr Glu Asn Val
260 265 270

Asp Leu Asp Thr Pro Asp Thr His Ile Ile Tyr Lys Pro Gly Thr Asp
275 280 285

Glu Thr Ser Ser Ser Phe Asn Xaa Gly Gln Gln Ser Met Pro Asn Arg
290 295 300

Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr
305 310 315 320

Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln Leu
325 330 335

Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln
340 345 350

Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg Tyr Phe Ser Met Trp
355 360 365

Sequence Listing as filed.txt

Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile Glu Asn
 370 375 380
 His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Asn Gly
 385 390 395 400
 Val Gly Phe Thr Asp Thr Phe Gln Gly Ile Lys Val Lys Thr Thr Asn
 405 410 415
 Asn Gly Thr Ala Asn Ala Thr Glu Trp Glu Ser Asp Thr Ser Val Asn
 420 425 430
 Asn Ala Asn Glu Ile Ala Lys Gly Asn Pro Phe Ala Met Glu Ile Asn
 435 440 445
 Ile Gln Ala Asn Leu Trp Arg Asn Phe Leu Tyr Ala Asn Val Ala Leu
 450 455 460
 Tyr Leu Pro Asp Ser Tyr Lys Tyr Thr Pro Ala Asn Ile Thr Leu Pro
 465 470 475 480
 Thr Asn Thr Asn Thr Tyr Asp Tyr Met Asn Gly Arg Val Val Ala Pro
 485 490 495
 Ser Leu Val Asp Ala Tyr Ile Asn Ile Gly Ala Arg Trp Ser Leu Asp
 500 505 510
 Pro Met Asp Asn Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu
 515 520 525
 Arg Tyr Arg Ser Met Leu Leu Gly Asn Gly Arg Tyr Val Pro Phe His
 530 535 540
 Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys Asn Leu Leu Leu Leu
 545 550 555 560
 Pro Gly Ser Tyr Thr Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met
 565 570 575
 Ile Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg Thr Asp Gly Ala Ser
 580 585 590
 Ile Ala Phe Thr Ser Ile Asn Leu Tyr Ala Thr Phe Phe Pro Met Ala
 595 600 605
 His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn
 610 615 620
 Asp Gln Ser Phe Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro
 625 630 635 640

Sequence Listing as filed.txt

Ile Pro Ala Asn Ala Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn
645 650 655

Trp Ala Ala Phe Arg Gly Trp Ser Phe Thr Arg Leu Lys Thr Arg Glu
660 665 670

Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly
675 680 685

Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys
690 695 700

Lys Val Ser Ile Thr Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp
705 710 715 720

Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys Arg Thr Val Asp Gly
725 730 735

Glu Gly Tyr Asn Val Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu
740 745 750

Val Gln Met Leu Ala His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val
755 760 765

Pro Glu Gly Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln
770 775 780

Pro Met Ser Arg Gln Val Val Asp Glu Val Asn Tyr Lys Asp Tyr Gln
785 790 795 800

Ala Val Thr Leu Ala Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr
805 810 815

Leu Ala Pro Thr Met Arg Gln Gly Gln Pro Tyr Pro Ala Asn Tyr Pro
820 825 830

Tyr Pro Leu Ile Gly Lys Ser Ala Val Ala Ser Val Thr Gln Lys Lys
835 840 845

Phe Leu Cys Asp Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe
850 855 860

Met Ser Met Gly Ala Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala
865 870 875 880

Asn Ser Ala His Ala Leu Asp Met Asn Phe Glu Val Asp Pro Met Asp
885 890 895

Glu Ser Thr Leu Leu Tyr Val Val Phe Glu Val Phe Asp Val Val Arg
900 905 910

Sequence Listing as filed.txt

Val His Gln Pro His Arg Gly Val Ile Glu Ala Val Tyr Leu Arg Thr
915 920 925

Pro Phe Ser Ala Gly Asn Ala Thr Thr
930 935

<210> 24
<211> 937
<212> PRT
<213> Adenoviridae - Mastadenovirus

<220>
<221> misc_feature
<222> (538)..(538)
<223> Xaa can be any naturally occurring amino acid

<400> 24

Met Ala Thr Pro Ser Met Leu Pro Gln Trp Ala Tyr Met His Ile Ala
1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
20 25 30

Arg Ala Thr Asp Thr Tyr Phe Ser Leu Gly Asn Lys Phe Arg Asn Pro
35 40 45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Val Pro Val Asp Arg Glu Asp Asn Thr Tyr Ser Tyr
65 70 75 80

Lys Val Arg Tyr Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ser Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Thr Ser Gln Trp Val Thr Lys Asp Asn Gly Thr Asp Lys
130 135 140

Thr Tyr Ser Phe Gly Asn Ala Pro Val Arg Gly Leu Asp Ile Thr Glu
145 150 155 160

Glu Gly Leu Gln Ile Gly Thr Asp Asp Ser Ser Thr Glu Ser Lys Lys
165 170 175

Ile Phe Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln Val Gly Asp Glu

Sequence Listing as filed.txt
185 190

180	Glu Trp His	Asp Thr Ile	Gly Ala Glu	Asp Lys Tyr	Gly Gly Arg	Ala
	195		200		205	
	Leu Lys Pro	Ala Thr Asn	Met Lys Pro	Cys Tyr Gly	Ser Phe Ala	Lys
	210		215		220	
	Pro Thr Asn	Ala Lys Gly	Gly Gln Ala	Lys Thr Arg	Thr Lys Asp	Asp
	225		230		235	240
	Gly Thr Thr	Glu Pro Asp	Ile Asp Met	Ala Phe Phe	Asp Asp Arg	Ser
		245		250		255
	Gln Gln Ala	Ser Phe Ser	Pro Glu Leu	Val Leu Tyr	Thr Glu Asn	Val
		260		265		270
	Asp Leu Glu	Thr Pro Asp	Thr His Ile	Ile Tyr Lys	Pro Gly Thr	Asp
		275		280		285
	Glu Thr Ser	Ser Ser Phe	Asn Leu Gly	Gln Gln Ser	Met Pro Asn	Arg
			295		300	
	Pro Asn Tyr	Ile Gly Phe	Arg Asp Asn	Phe Ile Gly	Leu Met Tyr	Tyr
	305		310		315	320
	Asn Ser Thr	Gly Asn Met	Gly Val Leu	Ala Gly Gln	Ala Ser Gln	Leu
		325		330		335
	Asn Ala Val	Val Asp Leu	Gln Asp Arg	Asn Thr Glu	Leu Ser Tyr	Gln
		340		345		350
	Leu Leu Leu	Asp Ser Leu	Gly Asp Arg	Thr Arg Tyr	Phe Ser Met	Trp
		355		360		365
	Asn Gln Ala	Val Asp Ser	Tyr Asp Pro	Asp Val Arg	Ile Ile Glu	Asn
		370		375		380
	His Gly Val	Glu Asp Glu	Leu Pro Asn	Tyr Cys Phe	Pro Leu Asn	Gly
	385		390		395	400
	Val Gly Phe	Thr Asp Thr	Phe Gln Gly	Ile Lys Val	Lys Thr Thr	Asn
		405		410		415
	Asn Gly Thr	Ala Asn Ala	Thr Glu Trp	Glu Ser Asp	Thr Ser Val	Asn
		420		425		430
	Asn Ala Asn	Glu Ile Ala	Lys Gly Asn	Pro Phe Ala	Met Glu Ile	Asn
		435		440		445
	Ile Gln Ala	Asn Leu Trp	Arg Asn Phe	Leu Tyr Ala	Asn Val Ala	Leu

450

Sequence Listing as filed.txt

455

460

Tyr Leu Pro Asp Ser Tyr Lys Tyr Thr Pro Ala Asn Val Thr Leu Pro
 465 470 475 480

Thr Asn Thr Asn Thr Tyr Glu Tyr Met Asn Gly Arg Val Val Ala Pro
 485 490 495

Ser Leu Val Asp Ser Tyr Ile Asn Ile Gly Ala Arg Trp Ser Leu Asp
 500 505 510

Pro Met Asp Asn Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu
 515 520 525

Arg Tyr Arg Ser Met Leu Leu Gly Asn Xaa Arg Phe Val Pro Phe His
 530 535 540

Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys Ser Leu Leu Leu Leu
 545 550 555 560

Pro Gly Ser Tyr Thr Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met
 565 570 575

Ile Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg Thr Asp Gly Ala Ser
 580 585 590

Ile Ser Phe Thr Ser Ile Asn Leu Tyr Ala Thr Phe Phe Pro Met Ala
 595 600 605

His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn
 610 615 620

Asp Gln Ser Phe Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro
 625 630 635 640

Ile Pro Ala Asn Ala Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn
 645 650 655

Trp Ala Ala Phe Arg Gly Trp Ser Phe Thr Arg Leu Lys Thr Lys Glu
 660 665 670

Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly
 675 680 685

Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys
 690 695 700

Lys Val Ser Ile Thr Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp
 705 710 715 720

Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys Arg Thr Val Asp Gly

Sequence Listing as filed.txt

725

730

735

Glu Gly Tyr Asn Val Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu
 740 745 750

Val Gln Met Leu Ala His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val
 755 760 765

Pro Glu Gly Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln
 770 775 780

Pro Met Ser Arg Gln Val Val Asp Glu Val Asn Tyr Lys Asp Tyr Gln
 785 790 795 800

Ala Val Thr Leu Ala Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr
 805 810 815

Leu Ala Pro Thr Met Arg Gln Gly Gln Pro Tyr Pro Ala Asn Tyr Pro
 820 825 830

Tyr Pro Leu Ile Gly Lys Ser Ala Val Thr Ser Val Thr Gln Lys Lys
 835 840 845

Phe Leu Cys Asp Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe
 850 855 860

Met Ser Met Gly Ala Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala
 865 870 875 880

Asn Ser Ala His Ala Leu Asp Met Asn Phe Glu Val Asp Pro Met Asp
 885 890 895

Glu Ser Thr Leu Leu Tyr Val Val Phe Glu Val Phe Asp Val Val Arg
 900 905 910

Val His Gln Pro His Arg Gly Val Ile Glu Ala Val Tyr Leu Arg Thr
 915 920 925

Pro Phe Ser Ala Gly Asn Ala Thr Thr
 930 935

<210> 25
 <211> 962
 <212> PRT
 <213> Adenoviridae - Mastadenovirus

<400> 25

Met Ala Thr Pro Ser Met Met Pro Gln Trp Ser Tyr Met His Ile Ser
 1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
 20 25 30

Sequence Listing as filed.txt

Arg Ala Thr Asp Ser Tyr Phe Ser Leu Ser Asn Lys Phe Arg Asn Pro
35 40 45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Ile Pro Val Asp Arg Glu Asp Thr Ala Tyr Ser Tyr
65 70 75 80

Lys Ala Arg Phe Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ser Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Ser Cys Glu Trp Glu Gln Val Glu Pro Ala Glu Glu Ala
130 135 140

Ala Glu Asn Glu Asp Glu Glu Glu Glu Glu Asp Val Val Asp Pro Gln
145 150 155 160

Glu Gln Glu Pro Thr Thr Lys Thr His Val Tyr Ala Gln Ala Pro Leu
165 170 175

Ser Gly Glu Lys Ile Thr Lys Asp Gly Leu Gln Ile Gly Thr Glu Ala
180 185 190

Thr Ala Ala Gly Gly Thr Lys Asp Leu Phe Ala Asp Pro Thr Phe Gln
195 200 205

Pro Glu Pro Gln Val Gly Glu Ser Gln Trp Asn Glu Ala Asp Ala Thr
210 215 220

Ala Ala Gly Gly Arg Val Leu Lys Lys Thr Thr Pro Met Lys Pro Cys
225 230 235 240

Tyr Gly Ser Tyr Ala Arg Pro Thr Asn Ala Asn Gly Gly Gln Gly Val
245 250 255

Leu Lys Ala Asn Ala Gln Gly Val Leu Glu Ser Gln Val Glu Met Gln
260 265 270

Phe Phe Ser Thr Ser Thr Asn Ala Thr Asn Glu Gln Asn Asn Ile Gln
275 280 285

Pro Lys Leu Val Leu Tyr Ser Glu Asp Val His Met Glu Thr Pro Asp
290 295 300

Sequence Listing as filed.txt

Thr His Ile Ser Tyr Lys Pro Thr Lys Ser Asp Asp Asn Ser Lys Val
 305 310 315 320
 Met Leu Gly Gln Gln Ser Met Pro Asn Arg Pro Asn Tyr Ile Ala Phe
 325 330 335
 Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr Asn Ser Thr Gly Asn Met
 340 345 350
 Gly Val Leu Ala Gly Gln Ala Ser Gln Leu Asn Ala Val Val Asp Leu
 355 360 365
 Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln Leu Leu Leu Asp Ser Met
 370 375 380
 Gly Asp Arg Thr Arg Tyr Phe Ser Met Trp Asn Gln Ala Val Asp Ser
 385 390 395 400
 Tyr Asp Pro Asp Val Arg Ile Ile Glu Asn His Gly Thr Glu Asp Glu
 405 410 415
 Leu Pro Asn Tyr Cys Phe Pro Leu Gly Gly Ile Gly Ile Thr Asp Thr
 420 425 430
 Tyr Gln Ala Ile Lys Thr Asn Gly Asn Gly Ala Gly Asp Gln Ala Thr
 435 440 445
 Thr Trp Gln Lys Asp Ser Gln Phe Ala Asp Arg Asn Glu Ile Gly Val
 450 455 460
 Gly Asn Asn Phe Ala Met Glu Ile Asn Leu Ser Ala Asn Leu Trp Arg
 465 470 475 480
 Asn Phe Leu Tyr Ser Asn Val Ala Leu Tyr Leu Pro Asp Lys Leu Lys
 485 490 495
 Tyr Asn Pro Ser Asn Val Glu Ile Ser Asp Asn Pro Asn Thr Tyr Asp
 500 505 510
 Tyr Met Asn Lys Arg Val Val Ala Pro Gly Leu Val Asp Cys Tyr Ile
 515 520 525
 Asn Leu Gly Ala Arg Trp Ser Leu Asp Tyr Met Asp Asn Val Asn Pro
 530 535 540
 Phe Asn His His Arg Asn Ala Gly Leu Arg Tyr Arg Ser Met Leu Leu
 545 550 555 560
 Gly Asn Gly Arg Tyr Val Pro Phe His Ile Gln Val Pro Gln Lys Phe
 565 570 575

Sequence Listing as filed.txt

Phe Ala Ile Lys Asn Leu Leu Leu Leu Pro Gly Ser Tyr Thr Tyr Glu
580 585 590

Trp Asn Phe Arg Lys Asp Val Asn Met Val Leu Gln Ser Ser Leu Gly
595 600 605

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

Leu Tyr Ala Thr Phe Phe Pro Met Ala His Asn Thr Ala Ser Thr Leu
625 630 635 640

Glu Ala Met Leu Arg Asn Asp Thr Asn Asp Gln Ser Phe Asn Asp Tyr
645 650 655

Leu Ser Ala Ala Asn Met Leu Tyr Pro Ile Pro Ala Asn Ala Thr Asn
660 665 670

Val Pro Ile Ser Ile Pro Ser Arg Asn Trp Ala Ala Phe Arg Gly Trp
675 680 685

Ala Phe Thr Arg Leu Lys Thr Lys Glu Thr Pro Ser Leu Gly Ser Gly
690 695 700

Phe Asp Pro Tyr Tyr Thr Tyr Ser Gly Ser Ile Pro Tyr Leu Asp Gly
705 710 715 720

Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Val Thr Phe Asp
725 730 735

Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Thr Pro Asn Glu
740 745 750

Phe Glu Ile Lys Arg Ser Val Asp Gly Glu Gly Tyr Asn Val Ala Gln
755 760 765

Cys Asn Met Thr Lys Asp Trp Phe Leu Ile Gln Met Leu Ala Asn Tyr
770 775 780

Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Ser Tyr Lys Asp Arg
785 790 795 800

Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val Val
805 810 815

Asp Glu Thr Lys Tyr Lys Asp Tyr Gln Gln Val Gly Ile Ile His Gln
820 825 830

His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg Glu
835 840 845

Sequence Listing as filed.txt

Gly Gln Ala Tyr Pro Ala Asn Phe Pro Tyr Pro Leu Ile Gly Lys Thr
850 855 860

Ala Val Asp Ser Ile Thr Gln Lys Lys Phe Leu Cys Asp Arg Thr Leu
865 870 875 880

Trp Arg Ile Pro Phe Ser Ser Asn Phe Met Ser Met Gly Ala Leu Thr
885 890 895

Asp Leu Gly Gln Asn Leu Leu Tyr Ala Asn Ser Ala His Ala Leu Asp
900 905 910

Met Thr Phe Glu Val Asp Pro Met Asp Glu Pro Thr Leu Leu Tyr Val
915 920 925

Leu Phe Glu Val Phe Asp Val Val Arg Val His Gln Pro His Arg Gly
930 935 940

Val Ile Glu Thr Val Tyr Leu Arg Thr Pro Phe Ser Ala Gly Asn Ala
945 950 955 960

Thr Thr

<210> 26
<211> 531
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 26

Met Met Arg Arg Val Tyr Pro Glu Gly Pro Pro Pro Ser Tyr Glu Ser
1 5 10 15

Val Met Gln Gln Ala Val Ala Ala Ala Met Gln Pro Pro Leu Glu Ala
20 25 30

Pro Tyr Val Pro Pro Arg Tyr Leu Ala Pro Thr Glu Gly Arg Asn Ser
35 40 45

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

Leu Val Asp Asn Lys Ser Ala Asp Ile Ala Ser Leu Asn Tyr Gln Asn
65 70 75 80

Asp His Ser Asn Phe Leu Thr Thr Val Val Gln Asn Asn Asp Phe Thr
85 90 95

Pro Thr Glu Ala Ser Thr Gln Thr Ile Asn Phe Asp Glu Arg Ser Arg
100 105 110

Sequence Listing as filed.txt

Trp Gly Gly Gln Leu Lys Thr Ile Met His Thr Asn Met Pro Asn Val
115 120 125

Asn Glu Phe Met Tyr Ser Asn Lys Phe Lys Ala Arg Val Met Val Ser
130 135 140

Arg Lys Thr Pro Asn Gly Val Ala Val Gly Asp Asp Tyr Asp Gly Gly
145 150 155 160

Gln Asp Glu Leu Thr Tyr Glu Trp Val Glu Phe Glu Leu Pro Glu Gly
165 170 175

Asn Phe Ser Val Thr Met Thr Ile Asp Leu Met Asn Asn Ala Ile Ile
180 185 190

Asp Asn Tyr Leu Ala Val Gly Arg Gln Asn Gly Val Leu Glu Ser Asp
195 200 205

Ile Gly Val Lys Phe Asp Thr Arg Asn Phe Arg Leu Gly Trp Asp Pro
210 215 220

Val Thr Glu Leu Val Met Pro Gly Val Tyr Thr Asn Glu Ala Phe His
225 230 235 240

Pro Asp Ile Val Leu Leu Pro Gly Cys Gly Val Asp Phe Thr Glu Ser
245 250 255

Arg Leu Ser Asn Leu Leu Gly Ile Arg Lys Arg Gln Pro Phe Gln Glu
260 265 270

Gly Phe Gln Ile Leu Tyr Glu Asp Leu Glu Gly Gly Asn Ile Pro Ala
275 280 285

Leu Leu Asp Val Glu Ala Tyr Glu Lys Ser Lys Glu Glu Ser Ala Ala
290 295 300

Ala Ala Thr Ala Ala Val Ala Thr Ala Ser Thr Glu Val Arg Gly Asp
305 310 315 320

Asn Phe Ala Ser Ala Ala Ala Val Ala Glu Ala Ala Glu Thr Glu Ser
325 330 335

Lys Ile Val Ile Gln Pro Val Glu Lys Asp Ser Lys Asp Arg Ser Tyr
340 345 350

Asn Val Leu Ala Asp Lys Lys Asn Thr Ala Tyr Arg Ser Trp Tyr Leu
355 360 365

Ala Tyr Asn Tyr Gly Asp Pro Glu Lys Gly Val Arg Ser Trp Thr Leu
370 375 380

Sequence Listing as filed.txt

Leu Thr Thr Ser Asp Val Thr Cys Gly Val Glu Gln Val Tyr Trp Ser
385 390 395 400

Leu Pro Asp Met Met Gln Asp Pro Val Thr Phe Arg Ser Thr Arg Gln
405 410 415

Val Ser Asn Tyr Pro Val Val Gly Ala Glu Leu Leu Pro Val Tyr Ser
420 425 430

Lys Ser Phe Phe Asn Glu Gln Ala Val Tyr Ser Gln Gln Leu Arg Ala
435 440 445

Phe Thr Ser Leu Thr His Val Phe Asn Arg Phe Pro Glu Asn Gln Ile
450 455 460

Leu Val Arg Pro Pro Ala Pro Thr Ile Thr Thr Val Ser Glu Asn Val
465 470 475 480

Pro Ala Leu Thr Asp His Gly Thr Leu Pro Leu Arg Ser Ser Ile Arg
485 490 495

Gly Val Gln Arg Val Thr Val Thr Asp Ala Arg Arg Arg Thr Cys Pro
500 505 510

Tyr Val Tyr Lys Ala Leu Gly Val Val Ala Pro Arg Val Leu Ser Ser
515 520 525

Arg Thr Phe
530

<210> 27
<211> 541
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 27

Met Met Arg Arg Val Tyr Pro Glu Gly Pro Pro Pro Ser Tyr Glu Ser
1 5 10 15

Val Met Gln Gln Ala Val Ala Val Ala Met Gln Pro Pro Leu Glu Ala
20 25 30

Pro Tyr Val Pro Pro Arg Tyr Leu Ala Pro Thr Glu Gly Arg Asn Ser
35 40 45

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

Leu Val Asp Asn Lys Ser Ala Asp Ile Ala Ser Leu Asn Tyr Gln Asn
65 70 75 80

Sequence Listing as filed.txt

Asp His Ser Asn Phe Leu Thr Thr Val Val Gln Asn Asn Asp Phe Thr
85 90 95

Pro Thr Glu Ala Ser Thr Gln Thr Ile Asn Phe Asp Glu Arg Ser Arg
100 105 110

Trp Gly Gly Gln Leu Lys Thr Ile Met His Thr Asn Met Pro Asn Val
115 120 125

Asn Glu Phe Met Tyr Ser Asn Lys Phe Lys Ala Arg Val Met Val Ser
130 135 140

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

Gln Asp Glu Leu Thr Tyr Glu Trp Val Glu Phe Glu Leu Pro Glu Gly
165 170 175

Asn Phe Ser Val Thr Met Thr Ile Asp Leu Met Asn Asn Ala Ile Ile
180 185 190

Asp Asn Tyr Leu Ala Val Gly Arg Gln Asn Gly Val Leu Glu Ser Asp
195 200 205

Ile Gly Val Lys Phe Asp Thr Arg Asn Phe Arg Leu Gly Trp Asp Pro
210 215 220

Val Thr Glu Leu Val Met Pro Gly Val Tyr Thr Asn Glu Ala Phe His
225 230 235 240

Pro Asp Ile Val Leu Leu Pro Gly Cys Gly Val Asp Phe Thr Glu Ser
245 250 255

Arg Leu Ser Asn Leu Leu Gly Ile Arg Lys Arg Gln Pro Phe Gln Glu
260 265 270

Gly Phe Gln Ile Leu Tyr Glu Asp Leu Glu Gly Gly Asn Ile Pro Ala
275 280 285

Leu Leu Asp Val Glu Ala Tyr Glu Lys Ser Lys Glu Asp Ser Ala Ala
290 295 300

Ala Thr Thr Ala Ala Val Ala Thr Ala Ala Thr Thr Asp Ala Asp Ala
305 310 315 320

Thr Thr Thr Arg Gly Asp Thr Phe Ala Thr Gln Ala Glu Glu Ala Ala
325 330 335

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

Sequence Listing as filed.txt

Val Glu Lys Asp Ser Lys Asp Arg Ser Tyr Asn Val Leu Ala Asp Lys
355 360 365

Lys Asn Thr Ala Tyr Arg Ser Trp Tyr Leu Ala Tyr Asn Tyr Gly Asp
370 375 380

Pro Glu Lys Gly Val Arg Ser Trp Thr Leu Leu Thr Thr Ser Asp Val
385 390 395 400

Thr Cys Gly Val Glu Gln Val Tyr Trp Ser Leu Pro Asp Met Met Gln
405 410 415

Asp Pro Val Thr Phe Arg Ser Thr Arg Gln Val Ser Asn Tyr Pro Val
420 425 430

Val Gly Ala Glu Leu Leu Pro Val Tyr Ser Lys Ser Phe Phe Asn Glu
435 440 445

Gln Ala Val Tyr Ser Gln Gln Leu Arg Ala Phe Thr Ser Leu Thr His
450 455 460

Val Phe Asn Arg Phe Pro Glu Asn Gln Ile Leu Val Arg Pro Pro Ala
465 470 475 480

Pro Thr Ile Thr Thr Val Ser Glu Asn Val Pro Ala Leu Thr Asp His
485 490 495

Gly Thr Leu Pro Leu Arg Ser Ser Ile Arg Gly Val Gln Arg Val Thr
500 505 510

Val Thr Asp Ala Arg Arg Arg Thr Cys Pro Tyr Val Tyr Lys Ala Leu
515 520 525

Gly Val Val Ala Pro Arg Val Leu Ser Ser Arg Thr Phe
530 535 540

<210> 28
<211> 532
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 28

Met Met Arg Arg Val Tyr Pro Glu Gly Pro Pro Pro Ser Tyr Glu Ser
1 5 10 15

Val Met Gln Gln Ala Val Ala Ala Ala Met Gln Pro Pro Leu Glu Ala
20 25 30

Pro Tyr Val Pro Pro Arg Tyr Leu Ala Pro Thr Glu Gly Arg Asn Ser
35 40 45

Ile Arg Tyr Ser Glu Leu Ala Pro Leu Tyr Asp Thr Thr Arg Leu Tyr

50

Sequence Listing as filed.txt

55

60

Leu Val Asp Asn Lys Ser Ala Asp Ile Ala Ser Leu Asn Tyr Gln Asn
65 70 75 80

Asp His Ser Asn Phe Leu Thr Thr Val Val Gln Asn Asn Asp Phe Thr
85 90 95

Pro Thr Glu Ala Ser Thr Gln Thr Ile Asn Phe Asp Glu Arg Ser Arg
100 105 110

Trp Gly Gly Gln Leu Lys Thr Ile Met His Thr Asn Met Pro Asn Val
115 120 125

Asn Glu Phe Met Tyr Ser Asn Lys Phe Lys Ala Arg Val Met Val Ser
130 135 140

Arg Lys Thr Pro Asn Gly Val Thr Val Thr Asp Gly Ser Gln Asp Glu
145 150 155 160

Leu Thr Tyr Glu Trp Val Glu Phe Glu Leu Pro Glu Gly Asn Phe Ser
165 170 175

Val Thr Met Thr Ile Asp Leu Met Asn Asn Ala Ile Ile Asp Asn Tyr
180 185 190

Leu Ala Val Gly Arg Gln Asn Gly Val Leu Glu Ser Asp Ile Gly Val
195 200 205

Lys Phe Asp Thr Arg Asn Phe Arg Leu Gly Trp Asp Pro Val Thr Glu
210 215 220

Leu Val Met Pro Gly Val Tyr Thr Asn Glu Ala Phe His Pro Asp Ile
225 230 235 240

Val Leu Leu Pro Gly Cys Gly Val Asp Phe Thr Glu Ser Arg Leu Ser
245 250 255

Asn Leu Leu Gly Ile Arg Lys Arg Gln Pro Phe Gln Glu Gly Phe Gln
260 265 270

Ile Leu Tyr Glu Asp Leu Glu Gly Gly Asn Ile Pro Ala Leu Leu Asp
275 280 285

Val Glu Ala Tyr Glu Lys Ser Lys Glu Asp Ser Thr Ala Val Ala Thr
290 295 300

Ala Ala Thr Val Ala Asp Ala Thr Val Thr Arg Gly Asp Thr Phe Ala
305 310 315 320

Thr Gln Ala Glu Glu Ala Ala Ala Leu Ala Ala Thr Asp Asp Ser Glu

Sequence Listing as filed.txt

325

330

335

Ser Lys Ile Val Ile Lys Pro Val Glu Lys Asp Ser Lys Asp Arg Ser
340 345 350

Tyr Asn Val Leu Ser Asp Gly Lys Asn Thr Ala Tyr Arg Ser Trp Tyr
355 360 365

Leu Ala Tyr Asn Tyr Gly Asp Pro Glu Lys Gly Val Arg Ser Trp Thr
370 375 380

Leu Leu Thr Thr Ser Asp Val Thr Cys Gly Val Glu Gln Val Tyr Trp
385 390 395 400

Ser Leu Pro Asp Met Met Gln Asp Pro Val Thr Phe Arg Ser Thr Arg
405 410 415

Gln Val Ser Asn Tyr Pro Val Val Gly Ala Glu Leu Leu Pro Val Tyr
420 425 430

Ser Lys Ser Phe Phe Asn Glu Gln Ala Val Tyr Ser Gln Gln Leu Arg
435 440 445

Ala Phe Thr Ser Leu Thr His Val Phe Asn Arg Phe Pro Glu Asn Gln
450 455 460

Ile Leu Val Arg Pro Pro Ala Pro Thr Ile Thr Thr Val Ser Glu Asn
465 470 475 480

Val Pro Ala Leu Thr Asp His Gly Thr Leu Pro Leu Arg Ser Ser Ile
485 490 495

Arg Gly Val Gln Arg Val Thr Val Thr Asp Ala Arg Arg Arg Thr Cys
500 505 510

Pro Tyr Val Tyr Lys Ala Leu Gly Val Val Ala Pro Arg Val Leu Ser
515 520 525

Ser Arg Thr Phe
530

<210> 29

<211> 528

<212> PRT

<213> Adenoviridae - Mastadenovirus

<400> 29

Met Met Arg Arg Val Tyr Pro Glu Gly Pro Pro Pro Ser Tyr Glu Ser
1 5 10 15

Val Met Gln Gln Ala Val Ala Ala Ala Met Gln Pro Pro Leu Glu Ala
20 25 30

Sequence Listing as filed.txt

Pro Tyr Val Pro Pro Arg Tyr Leu Ala Pro Thr Glu Gly Arg Asn Ser
35 40 45

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

Leu Val Asp Asn Lys Ser Ala Asp Ile Ala Ser Leu Asn Tyr Gln Asn
65 70 75 80

Asp His Ser Asn Phe Leu Thr Thr Val Val Gln Asn Asn Asp Phe Thr
85 90 95

Pro Thr Glu Ala Ser Thr Gln Thr Ile Asn Phe Asp Glu Arg Ser Arg
100 105 110

Trp Gly Gly Gln Leu Lys Thr Ile Met His Thr Asn Met Pro Asn Val
115 120 125

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

Arg Lys Thr Pro Asn Gly Val Thr Val Thr Asp Gly Ser Gln Asp Glu
145 150 155 160

Leu Thr Tyr Glu Trp Val Glu Phe Glu Leu Pro Glu Gly Asn Phe Ser
165 170 175

Val Thr Met Thr Ile Asp Leu Met Asn Asn Ala Ile Ile Asp Asn Tyr
180 185 190

Leu Ala Val Gly Arg Gln Asn Gly Val Leu Glu Ser Asp Ile Gly Val
195 200 205

Lys Phe Asp Thr Arg Asn Phe Arg Leu Gly Trp Asp Pro Val Thr Glu
210 215 220

Leu Val Met Pro Gly Val Tyr Thr Asn Glu Ala Phe His Pro Asp Ile
225 230 235 240

Val Leu Leu Pro Gly Cys Gly Val Asp Phe Thr Glu Ser Arg Leu Ser
245 250 255

Asn Leu Leu Gly Ile Arg Lys Arg Gln Pro Phe Gln Glu Gly Phe Gln
260 265 270

Ile Met Tyr Glu Asp Leu Glu Gly Gly Asn Ile Pro Ala Leu Leu Asp
275 280 285

Val Glu Ala Tyr Glu Lys Ser Lys Glu Asp Ser Ala Ala Ala Ala Thr
290 295 300

Sequence Listing as filed.txt

Ala Ala Val Ala Thr Ala Ser Thr Glu Val Arg Gly Asp Asn Phe Ala
305 310 315 320

Ser Ala Ala Ala Val Ala Glu Ala Ala Glu Thr Glu Ser Lys Ile Val
325 330 335

Ile Gln Pro Val Glu Lys Asp Ser Lys Asp Arg Ser Tyr Asn Val Leu
340 345 350

Ala Asp Lys Lys Asn Thr Ala Tyr Arg Ser Trp Tyr Leu Ala Tyr Asn
355 360 365

Tyr Gly Asp Pro Glu Lys Gly Val Arg Ser Trp Thr Leu Leu Thr Thr
370 375 380

Ser Asp Val Thr Cys Gly Val Glu Gln Val Tyr Trp Ser Leu Pro Asp
385 390 395 400

Met Met Gln Asp Pro Val Thr Phe Arg Ser Thr Arg Gln Val Ser Asn
405 410 415

Tyr Pro Val Val Gly Ala Glu Leu Leu Pro Val Tyr Ser Lys Ser Phe
420 425 430

Phe Asn Glu Gln Ala Val Tyr Ser Gln Gln Leu Arg Ala Phe Thr Ser
435 440 445

Leu Thr His Val Phe Asn Arg Phe Pro Glu Asn Gln Ile Leu Val Arg
450 455 460

Pro Pro Ala Pro Thr Ile Thr Thr Val Ser Glu Asn Val Pro Ala Leu
465 470 475 480

Thr Asp His Gly Thr Leu Pro Leu Arg Ser Ser Ile Arg Gly Val Gln
485 490 495

Arg Val Thr Val Thr Asp Ala Arg Arg Arg Thr Cys Pro Tyr Val Tyr
500 505 510

Lys Ala Leu Gly Val Val Ala Pro Arg Val Leu Ser Ser Arg Thr Phe
515 520 525

<210> 30
<211> 535
<212> PRT
<213> Adenoviridae - Mastadenovirus
<400> 30

Met Met Arg Arg Ala Tyr Pro Glu Gly Pro Pro Pro Ser Tyr Glu Ser
1 5 10 15

Sequence Listing as filed.txt

Val Met Gln Gln Ala Met Ala Ala Ala Ala Met Gln Pro Pro Leu
20 25 30

Glu Ala Pro Tyr Val Pro Pro Arg Tyr Leu Ala Pro Thr Glu Gly Arg
35 40 45

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

Leu Tyr Leu Val Asp Asn Lys Ser Ala Asp Ile Ala Ser Leu Asn Tyr
65 70 75 80

Gln Asn Asp His Ser Asn Phe Leu Thr Thr Val Val Gln Asn Asn Asp
85 90 95

Phe Thr Pro Thr Glu Ala Ser Thr Gln Thr Ile Asn Phe Asp Glu Arg
100 105 110

Ser Arg Trp Gly Gly Gln Leu Lys Thr Ile Met His Thr Asn Met Pro
115 120 125

Asn Val Asn Glu Phe Met Tyr Ser Asn Lys Phe Lys Ala Arg Val Met
130 135 140

Val Ser Arg Lys Thr Pro Asn Gly Val Thr Val Thr Glu Asp Tyr Asp
145 150 155 160

Gly Ser Gln Asp Glu Leu Lys Tyr Glu Trp Val Glu Phe Glu Leu Pro
165 170 175

Glu Gly Asn Phe Ser Val Thr Met Thr Ile Asp Leu Met Asn Asn Ala
180 185 190

Ile Ile Asp Asn Tyr Leu Ala Val Gly Arg Gln Asn Gly Val Leu Glu
195 200 205

Ser Asp Ile Gly Val Lys Phe Asp Thr Arg Asn Phe Arg Leu Gly Trp
210 215 220

Asp Pro Val Thr Glu Leu Val Met Pro Gly Val Tyr Thr Asn Glu Ala
225 230 235 240

Phe His Pro Asp Ile Val Leu Leu Pro Gly Cys Gly Val Asp Phe Thr
245 250 255

Glu Ser Arg Leu Ser Asn Leu Leu Gly Ile Arg Lys Arg Gln Pro Phe
260 265 270

Gln Glu Gly Phe Gln Ile Met Tyr Glu Asp Leu Glu Gly Gly Asn Ile
275 280 285

Sequence Listing as filed.txt

Pro Ala Leu Leu Asp Val Asp Ala Tyr Glu Lys Ser Lys Glu Glu Ser
290 295 300

Ala Ala Ala Ala Thr Ala Ala Val Ala Thr Ala Ser Thr Glu Val Arg
305 310 315 320

Gly Asp Asn Phe Ala Ser Ala Ala Ala Val Ala Ala Ala Glu Ala Ala
325 330 335

Glu Thr Glu Ser Lys Ile Val Ile Gln Pro Val Glu Lys Asp Ser Lys
340 345 350

Asp Arg Ser Tyr Asn Val Leu Pro Asp Lys Ile Asn Thr Ala Tyr Arg
355 360 365

Ser Trp Tyr Leu Ala Tyr Asn Tyr Gly Asp Pro Glu Lys Gly Val Arg
370 375 380

Ser Trp Thr Leu Leu Thr Thr Ser Asp Val Thr Cys Gly Val Glu Gln
385 390 395 400

Val Tyr Trp Ser Leu Pro Asp Met Met Gln Asp Pro Val Thr Phe Arg
405 410 415

Ser Thr Arg Gln Val Ser Asn Tyr Pro Val Val Gly Ala Glu Leu Leu
420 425 430

Pro Val Tyr Ser Lys Ser Phe Phe Asn Glu Gln Ala Val Tyr Ser Gln
435 440 445

Gln Leu Arg Ala Phe Thr Ser Leu Thr His Val Phe Asn Arg Phe Pro
450 455 460

Glu Asn Gln Ile Leu Val Arg Pro Pro Ala Pro Thr Ile Thr Thr Val
465 470 475 480

Ser Glu Asn Val Pro Ala Leu Thr Asp His Gly Thr Leu Pro Leu Arg
485 490 495

Ser Ser Ile Arg Gly Val Gln Arg Val Thr Val Thr Asp Ala Arg Arg
500 505 510

Arg Thr Cys Pro Tyr Val Tyr Lys Ala Leu Gly Ile Val Ala Pro Arg
515 520 525

Val Leu Ser Ser Arg Thr Phe
530 535

<210> 31
<211> 581
<212> PRT

Sequence Listing as filed.txt
<213> Adenoviridae - Mastadenovirus

<400> 31

Met Arg Arg Ala Ala Met Tyr His Glu Gly Pro Pro Pro Ser Tyr Glu
1 5 10 15

Ser Val Val Gly Ala Ala Ala Ala Ser Pro Phe Ala Ser Gln Leu Glu
20 25 30

Pro Pro Tyr Val Pro Pro Arg Tyr Leu Arg Pro Thr Gly Gly Arg Asn
35 40 45

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

Tyr Leu Val Asp Asn Lys Ser Ala Asp Val Ala Ser Leu Asn Tyr Gln
65 70 75 80

Asn Asp His Ser Asn Phe Leu Thr Thr Val Ile Gln Asn Asn Asp Tyr
85 90 95

Thr Pro Ser Glu Ala Ser Thr Gln Thr Ile Asn Leu Asp Asp Arg Ser
100 105 110

His Trp Gly Gly Asp Leu Lys Thr Ile Leu His Thr Asn Met Pro Asn
115 120 125

Val Asn Glu Phe Met Phe Thr Asn Lys Phe Lys Ala Arg Val Met Val
130 135 140

Ser Arg Ser His Thr Lys Asp Asp Arg Val Glu Leu Lys Tyr Glu Trp
145 150 155 160

Val Glu Phe Glu Leu Pro Glu Gly Asn Tyr Ser Glu Thr Met Thr Ile
165 170 175

Asp Leu Met Asn Asn Ala Ile Val Glu His Tyr Leu Lys Val Gly Arg
180 185 190

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

Asn Phe Arg Leu Gly Leu Asp Pro Val Thr Gly Leu Val Met Pro Gly
210 215 220

Val Tyr Thr Asn Glu Ala Phe His Pro Asp Ile Ile Leu Leu Pro Gly
225 230 235 240

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

Sequence Listing as filed.txt

Arg Lys Arg Gln Pro Phe Gln Glu Gly Phe Arg Ile Thr Tyr Glu Asp
260 265 270

Leu Glu Gly Gly Asn Ile Pro Ala Leu Leu Asp Val Glu Ala Tyr Gln
275 280 285

Asp Ser Leu Lys Glu Glu Glu Ala Gly Glu Gly Ser Gly Gly Gly Ala
290 295 300

Gly Gln Glu Glu Gly Gly Ala Ser Ser Glu Ala Ser Ala Asp Pro Ala
305 310 315 320

Ala Ala Ala Glu Ala Glu Ala Ala Asp Pro Ala Met Val Val Glu Glu
325 330 335

Glu Lys Asp Met Asn Asp Glu Ala Val Arg Gly Asp Thr Phe Ala Thr
340 345 350

Arg Gly Glu Glu Lys Lys Ala Glu Ala Glu Ala Ala Glu Glu Ala
355 360 365

Ala Ala Ala Ala Ala Ala Val Glu Ala Ala Ala Glu Ala Glu Lys Pro
370 375 380

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

Ser Tyr Asn Val Leu Lys Asp Ser Thr Asn Thr Glu Tyr Arg Ser Trp
405 410 415

Tyr Leu Ala Tyr Asn Tyr Gly Asp Pro Ala Thr Gly Val Arg Ser Trp
420 425 430

Thr Leu Leu Cys Thr Pro Asp Val Thr Cys Gly Ser Glu Gln Val Tyr
435 440 445

Trp Ser Leu Pro Asp Met Met Gln Asp Pro Val Thr Phe Arg Ser Thr
450 455 460

Arg Gln Val Ser Asn Phe Pro Val Val Gly Ala Glu Leu Leu Pro Val
465 470 475 480

His Ser Lys Ser Phe Tyr Asn Asp Gln Ala Val Tyr Ser Gln Leu Ile
485 490 495

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

Gln Ile Leu Ala Arg Pro Pro Ala Pro Thr Ile Thr Thr Val Ser Glu
515 520 525

Sequence Listing as filed.txt

Asn Val Pro Ala Leu Thr Asp His Gly Thr Leu Pro Leu Arg Asn Ser
 530 535 540

Ile Gly Gly Val Gln Arg Val Thr Val Thr Asp Ala Arg Arg Arg Thr
 545 550 555 560

Cys Pro Tyr Val Tyr Lys Ala Leu Gly Ile Val Ser Pro Arg Val Leu
 565 570 575

Ser Ser Arg Thr Phe
 580

<210> 32
 <211> 1323
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

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<400> 32
atgtccaaaa agcgcgtccg ggtggatgat gacttcgacc ccgtctaccc ctacgatgca      60
gacaacgcac cgaccgtgcc cttcatcaac cctcccttcg tctcttcaga tggattccaa      120
gaaaagcccc tgggggtgtt gtccctgcga ctggctgacc ccgtcaccac caagaacggg      180
gaaatcacc tcaagctggg agagggggtg gacctcgacg actcgggaaa actcatctcc      240
aaaaatgcca ccaaggccac tgcccctctc agtattttcca acagcaccat ttcccctaac      300
atggatgccc ctctttacaa caacaatgga aagttaggca taagaatagg agcacctcta      360
aaggtagtag acttactaaa cacttttagct gtagcctatg gatcggttct aggtctcaag      420
aataatgccc ttacagttca gttagtttct ccactcactt ttgataacaa aggcaatgta      480
aaaattaact tagggaatgg cccattaaca gttgcggcaa accgactgag tgttacctgc      540
aaaagagggt tatatgtcac tactacagga gatgcactcg aaagcaacat aagctgggct      600
aaaggataaa gatttgaagg aaatgcaata gcagcaaata ttggcaaagg gcttgaattt      660
ggtactacta gttcagagtc agatgtcagc aatgcttatc ctatccaagt aaaactaggt      720
actggtctca cctttgacag cacagggtga attgtcgctt ggaacaaaga agatgacaaa      780
cttacactgt ggaccacagc cgatccatct ccaaactgtc acatatattc tgacaaggat      840
gctaagctta cactctgctt gacaaagtgt ggcagtcaga tactgggcac tgtttctctc      900
atagctgttg atactggtag cttaaatacca ataacaggac aagtaaccac tgctcttggt      960
tcacttaaat tcgatgccaa tggagttttg caaacaggtt caacattgga caaagaatat     1020
tgggaatttta gaaaaggaga tgtgacacct gctgagccat atactaatgc tataggtttt     1080
atgcccataa taaaggcata tccgaaaaac acaaattcag ctgcaaaaag tcacattgtg     1140
ggaaaagtat acctacatgg ggaagtaagc aagccactag acttgataat tacattttaat     1200
gaaaccagta atgaaacctg tacctattgc attaactttc agtggcagtg gggaactgac     1260
aaatataaaa atgaaacgct tgctgtcagt tcattcacct tttcctacat tgcccaagaa     1320
taa                                                                    1323
  
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Sequence Listing as filed.txt

<210> 33
<211> 1332
<212> DNA
<213> Adenoviridae - Mastadenovirus

<400> 33
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gagaagcccc tgggggtggt gtccctgcga ctggccgacc ccgtcaccac caagaacggg 180
gaaatcacc ccaagctggg agaggggggtg gacctcgacg actcgggaaa actcatctcc 240
aaaaatgcca ccaaggccac tgcccctctc agtatttcca acagcaccat ttcccttaac 300
atggctgccc ctttttataa caacaatgga acgttaagtc tcaatgtttc tacaccatta 360
gcagtatttc ccacttttaa cacttttaggt atcagtcttg gcaacggtct tcaaacttct 420
aataagttgc tggctgtaca gttaactcat cctcttacat tcagctcaaa tagcatcaca 480
gtaaaaacag acaaaggact ctatattaat tctagtggaa acagaggggt tgaggctaac 540
ataagcctaa aaagaggact gatTTTTgat ggtaatgcta ttgcaacata ctttggaagt 600
ggtttagact atggatccta tgatagcgat ggaaaaacaa gacccatcat caccaaaatt 660
ggagcagggt tgaattttga ttctaataat gccatggctg tgaagctagg cacaggttta 720
agttttgact ctgccggtgc cttaacagct ggaaacaaag aggatgacaa gctaacactt 780
tggtactacac ctgaccccag ccctaattgt caattacttt cagacagaga tgccaaattt 840
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tttagggaag gacagaccac ccaaagtgtg gcctatacaa atgctgtggg attcatgccc 1080
aatctagggt catatcctaa aacccaaagc aaaacaccaa aaaatagtat agtaagccag 1140
gtatatttaa atggagaaac tactatgcca atgacactga caataacttt caatggcact 1200
gatgaaaaag acacaacacc tgtcagcact tactctatga cttttacatg gcagtggact 1260
ggagactata aggacaagaa tattaccttt gctaccaact cttttacttt ctctacatg 1320
gccaagaat aa 1332

<210> 34
<211> 1278
<212> DNA
<213> Adenoviridae - Mastadenovirus

<400> 34
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gacaacgcac cgaccgtgcc cttcatcaac ccccccttcg tctcttcaga tggattccaa 120
gagaagcccc tgggggtggt gtccctgcga ctggccgacc ccgtcaccac caagaacggg 180
gaaatcacc ccaagctggg agaggggggtg gacctcgact cctcgggaaa actcatctcc 240

Sequence Listing as filed.txt

aacacggcca ccaaggccgc tgcccctctc agtttttcca acaacacccat ttcctttaac	300
atggatcacc ccttttacac taaagatgga aaattagcct tacaagtttc tccaccatta	360
aatatactga gaacaagcat tctaaacaca ctagcttttag gttttggatc aggttttagga	420
ctccgtggct ctgccttggc agtacagtta gtctctccac ttacatttga tactgatgga	480
aacataaagc ttaccttaga cagaggtttg catgttaca caggagatgc aattgaaagc	540
aacataagct gggctaaagg tttaaaattt gaagatggag ccatagcaac caacattgga	600
aatgggttag agtttggaag cagtagtaca gaaacaggtg tcgatgatgc ttacccaatc	660
caagttaaac ttggatctgg ccttagcttt gacagtacag gagccataat ggctggtaac	720
aaagaagacg ataaactcac tttgtggaca acacctgatc catcaccaaa ctgtcaaata	780
ctcgcagaaa atgatgcaaa actaacactt tgcttgacta aatgtggtag tcaaatactg	840
gccactgtgt cagtcttagt tgtaggaagt ggaaacctaa accccattac tggcaccgta	900
agcagtgtc aggtgtttct acgttttgat gcaaacggtg ttcttttaac agaacattct	960
acactaaaaa aatactgggg gtataggcag ggagatagca tagatggcac tccatatgtc	1020
aatgctgtag gattcatgcc caatttaaaa gcttatccaa agtcacaaag ttctactact	1080
aaaaataata tagtagggca agtatacatg aatggagatg tttcaaaacc tatgtctctc	1140
actataacct tcaatggtac tgatgacagc aacagtacat attcaatgtc attttcatac	1200
acctggacta atggaagcta tgttggagca acatttggag ctaactctta taccttctcc	1260
tacatcgccc aagaatga	1278

<210> 35
 <211> 1278
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 35	
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gagaagcccc tgggggtgct gtccctgcga ctggccgacc ccgtcaccac caagaacggg	180
gaaatcacc tcaagctggg agaggggctg gacctcgact cctcgggaaa actcatctcc	240
aacacggcca ccaaggccgc cgcccctctc agtttttcca acaacacccat ttcctttaac	300
atggatcacc ccttttacac taaagatgga aaattatcct tacaagtttc tccaccatta	360
aatatactga gaacaagcat tctaaacaca ctagcttttag gttttggatc aggttttagga	420
ctccgtggct ctgccttggc agtacagtta gtctctccac ttacatttga tactgatgga	480
aacataaagc ttaccttaga cagaggtttg catgttaca caggagatgc aattgaaagc	540
aacataagct gggctaaagg tttaaaattt gaagatggag ccatagcaac caacattgga	600
aatgggttag agtttggaag cagtagtaca gaaacaggtg ttgatgatgc ttacccaatc	660
caagttaaac ttggatctgg ccttagcttt gacagtacag gagccataat ggctggtaac	720
aaagaagacg ataaacttac tttgtggaca acacctgatc catcaccaaa ctgtcaaata	780

Sequence Listing as filed.txt

ctcgcagaaa atgatgcaaa actaacactt tgcttgacta aatgtggtag tcaaatactg	840
gccactgtgt cagtcttagt tgtaggaagt ggaaacctaa accccattac tggcaccgta	900
agcagtgtc aggtgtttct acgttttgat gcaaacggtg ttcttttaac agaacattct	960
acactaaaaa aatactgggg gtataggcag ggagatagca tagatggcac tccatatacc	1020
aatgctgtag gattcatgcc caatttaaaa gcttatccaa agtcacaaag ttctactact	1080
aaaaataata tagtagggca agtatacatg aatggagatg tttcaaaacc tatgcttctc	1140
actataaccc tcaatggtac tgatgacagc aacagtacat attcaatgtc attttcatac	1200
acctggacta atggaagcta tgttggagcg acatttgggg ctaactctta taccttctca	1260
tacatcgccc aagaatga	1278

<210> 36
 <211> 1329
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 36	
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gacaacgcac cgactgtgcc cttcatcaac cctcccttcg tctcttcaga tggattccaa	120
gaaaagcccc tgggggtgtt gtccctgcgt ctggccgacc ccgtcaccac caagaatggg	180
gctgtcccc tcaagctcgg ggagggggtg gacctcgacg actcgggaaa actcatctcc	240
aaaaaatcca ccaaggccaa ttccctctc agtatttcca acaacaccat ttcccttaac	300
atggataccc ctttttatac caaagatgga aaattaacca tgcaggtaac tgcaccatta	360
aagttagcaa acacggccat actaaacaca ctagctatgg cctatggaaa tggtttaggt	420
ctaaacaaca atgctctcac tgttcagga acatctccac tcacatttga taatagcaaa	480
gtcaagatta acctagggaa tggaccacta atggtatctg ctaacaagct ttcaatcaac	540
tgcttacggg gtctatatgt tgccccta ataccggac tagaaaccaa cataagctgg	600
gcaaacgcaa tgcgctttga gggtaatgca atggctgttt atatagacac aaataaaggc	660
ctacaatttg gcactactag cacagaaaca ggtgtcacca atgcttacct catacaagtc	720
aaacttggcg caggccttgc atttgatagc acaggagcta ttgttgcttg gaacaaagaa	780
aatgacagcc tcactttgtg gactacacca gatccctctc caaattgtaa aatagcatct	840
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gaatactgga actacagaca aggagatcta attccaggta caccatatac acatgctgtg	1080
ggtttcatgc ctaacaaaaa agcctaccct aaaaacacaa ctgcagcttc caagagccac	1140
attgtgggtg atgtgtattt agatggagat gcagataagc ctttatctct tatcatcact	1200
ttcaatgaaa ctgatgatga aacctgtgat tactgcatca actttcaatg gaaatgggga	1260

Sequence Listing as filed.txt

gctgatcaat ataaggataa gacactcgca accagttcat tcaccttctc atacatcgcc	1320
caagaataa	1329

<210> 37
 <211> 1731
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 37 atgaagcgcg ccaaaacgtc tgacgagacc ttcaaccccg tgtacccta tgacacggaa	60
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gaaagccccc caggggtcct gtctctgcgc ctgtcagagc ccctggtcac ttcccacggc	180
atgcttgccc tgaaaatggg aaatggcctc tccctggatg acgccggcaa cctcacctct	240
caagatgtca ccaccgtcac cctccccc caaaaaacca agaccaacct cagcctccag	300
acctcagccc ccctgaccgt tagctctggg tccctcaccg tcgcggccgc cgctccactg	360
gcggtggccg gcacctctct caccatgcaa tctcaggccc ccttgacagt gcaagatgca	420
aaactcggcc tggccacca gggaccctg accgtgtctg aaggcaaact caccttgacg	480
acatcggctc cactgacggc cgctgacagc agcactctca ctgttagtgc cacacctccc	540
ctcagcacia gcaatggtag tttgagcatt gacatgcagg ccccgattta taccaccaat	600
ggaaaactgg cacttaacat tgggtgctcc ctgcatgtgg tagacacctt aaatgcacta	660
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ctggaatatg actccaacia agctataatc actaaacttg gaactggcct aagctttgac	1140
aacacagggt ccatcacagt aggcaaaaa aatgatgaca agcttacctt gtggaccaca	1200
ccagaccctt ccccaaactg cagaattaat tcagaaaaag atgctaaact cacactagtt	1260
ttgactaaat gcggcagcca ggtgttagcc agcgtttctg ttttatctgt aaaaggcagc	1320
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ggagttttat tgagcaattt ttctcttgac cccaataact ggaactatag aaaaggcgat	1440
tctacagaag gcactgcata tactaatgct gtgggattta tgcccaacct cacagcatac	1500
cctaaaacac agagccagac tgctaaaagc aacattgtaa gtcaagttta cttgaatggg	1560
gacaaaacia aacccatgac cctaaccatc accctcaatg gaactaatga aacaggggat	1620
gctacagtaa gcacatact catgtcattt tcatggaact ggaatggaag taattacatt	1680
aatgacacct tccaaaccaa ctcttttacc ttctctaca tcgccaaga a	1731

Sequence Listing as filed.txt

<210> 38
 <211> 2814
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<220>
 <221> misc_feature
 <222> (345)..(345)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (360)..(360)
 <223> n is a, c, g, or t

<400> 38
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 ctggggaaca agtttaggaa cccacagggtg gcgcccacgc acgatgtgac caccgaccgc 180
 agccagcggc tgacgctgcg cttcgtgccc gtggaccgcg aggacaacac ctactcgtac 240
 aaagtgcgct acacgctggc cgtgggacgc aaccgcgtgc tggacatggc cagcacctac 300
 tttagatcc gcggcgtgct ggatcggggc ccagcttca aacntactc cggcaccgcn 360
 tacaacagcc tggctcccaa gggagcggcc aacacctcac agtggataac caaagacaat 420
 ggaactgata agacatacag ttttggaaat gctccagtca gaggattgga cattacagaa 480
 gaggggtctcc aaataggacc cgatgagtca gggggtgaaa gcaagaaaat ttttgcagac 540
 aaaacctatc agcctgaacc tcagcttggg gatgaggaat ggcatagata tattggagct 600
 gaagacaagt atggaggcag agcgcttaaa cctgccacca acatgaaacc ctgctatggg 660
 tctttcgcca agccaactaa tgctaaggga ggtcaggcta aaagcagaac caaggacgat 720
 ggcactactg agcctgatat tgacatggcc ttctttgacg atcgagctca gcaagctagt 780
 ttcagttccag aacttgTTTT gtatactgag aatgtcgatc tggacacccc ggatacccac 840
 attattttaca aacctggcac tgatgaaaca agttcttctt tcaacttggg tcagcagctc 900
 atgcccaca gacccaacta catcggcttc agagacaact ttatcgggtct catgtactac 960
 aacagtactg gcaatatggg tgtactagct ggacaggcct ccagctgaa tgctgtggtg 1020
 gacttgcagg acagaaacac tgaactgtcc taccagctct tgcttgactc tctgggtgac 1080
 agaaccagggt atttcagtat gtggaaccag gcggtggaca gctacgaccc cgatgtgcgc 1140
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 gtgggcttta cagatacatt ccaggggaatt aagggttaaaa ctaccaataa cggaacagca 1260
 aatgctacag agtgggaatc tgatacctct gtcaataatg ctaatgagat tgccaagggc 1320
 aatcctttcg ccatggagat caacatccag gccaacctgt ggcggaactt cctctacgcg 1380
 aacgtggcgc tgtacctgcc cgactcctac aagtacacgc cggccaacat cagcgtgccc 1440
 accaacacca acacctacga ttacatgaac ggccgcgtgg tagcgccctc gctggtggac 1500

Sequence Listing as filed.txt

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gtgcccttcc acatccaggt gcccctaaag tttttcgcca tcaagagcct cctgctcctg	1680
cccgggtcct acacctacga gtggaacttc cgcaaggacg tcaacatgat cctgcagagc	1740
tccttcggca acgacctgcg cacggacggg gcctccatcg ctttcaccag catcaacctc	1800
tacgccacct tcttccccat ggcgacacac accgcctcca cgctcgaggc catgctgcgc	1860
aacgacacca acgaccagtc cttcaacgac tacctctcgg cggccaacat gctctacccc	1920
atcccggcca acgccaccaa cgtgcccata tccatcccct cgcgcaactg ggccgccttc	1980
cgcggtcgtt ctttcacgcg cctcaagacc cgcgagacgc cctcgctggg ctccgggttc	2040
gacccctact tcgtctactc gggctccatc ccctacctcg acggcacctt ctacctcaac	2100
cacaccttca agaagggtctc catcaccttc gactcctccg tcagctggcc cggcaacgac	2160
cgctcctga cgcccaacga gttcgaaatc aagcgacccg tcgacggaga ggggtacaac	2220
gtggcccagt gcaacatgac caaggactgg ttcctgggtc agatgctggc ccactacaac	2280
atcggtacc agggcttcta cgtgcccag ggctacaagg accgcatgta ctcttcttc	2340
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tccagcaact tcatgtccat gggcgcgctc accgacctcg gccagaacat gctctacgcc	2640
aactccgccc acgcgctaga catgaatttc gaagtcgacc ccatggatga gtccaccctt	2700
ctctatgttg tcttcgaagt cttcgacgtc gtccgagtgc accagcccca ccgcgcgctc	2760
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<210> 39
 <211> 2814
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 39	
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ctggggaaca agtttaggaa cccacgggtg gcgcccacgc acgatgtgac caccgaccgc	180
agccagcggc tgacgctgcg cttcgtgccc gtggacggcg aggacaacac ctactcgtac	240
aaagtgcgct acacgctggc cgtgggacgc aaccgcgtgc tggacatggc cagcacctac	300
tttgacatcc gcggcggtgct ggatcggggc cccagcttca aaccctactc cggcaccgcc	360
tacaacgctc tggctcccaa gggagcggcc aacacctcac agtggataac caagacaat	420
ggaactgata agacatacag ttttggaat gctccagtca gaggattgga cattacagaa	480

Sequence Listing as filed.txt

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aaaacctatc agcctgaacc tcagcttgga gatgaggaat ggcatagatac tattggagct	600
gaagacaagt atggaggcag agcgcttaaa cctgccacca acatgaaacc ctgctatggg	660
tctttcgcca agccaactaa tgctaagggg ggtcaggcta aaagcagaac caaggacgat	720
ggcactactg agcctgatat tgacatggcc ttctttgacg atcgcagtca gcaagctagt	780
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atgcccaca gacccaacta cattgggttc agagacaact ttatcgggct catgtactac	960
aacagcactg gcaatatggg tgtactggct ggtcaggcct cccagctgaa tgctgtggtg	1020
gacttgcagg acagaaacac cgaactgtcc taccagctct tgcttgactc tctgggtgac	1080
agaaccaggt atttcagtat gtggaatcag gcggtggaca gttatgacct cgatgtgcgc	1140
attattgaaa atcacggtgt ggaggatgaa ctccccaact attgcttccc tttgaatggt	1200
gtgggcttta cagatacatt ccaggggaatt aagggttaaaa ctaccaataa cggaacagca	1260
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aatcctttcg ccatggagat caacatccag gccaacctgt ggcggaactt cctctacgcg	1380
aacgtggcgc tgtacctgcc cgactcctac aagtacacgc cggccaacat cacgctgccg	1440
accaacacca acacctacga ttacatgaac ggccgcgtgg tggcgccctc gctggtggac	1500
gcctacatca acatcggggc gcgctggtcg ctggaccca tggacaacgt caacccttc	1560
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tacgccacct tcttccccat ggcgcacaa accgcctcca cgctcgaggc catgctgcgc	1860
aacgacacca acgaccagtc cttcaacgac tacctctcgg cggccaacat gctctacccc	1920
atcccggcca acgccaccaa cgtgcccac tccatcccct cgcgcaactg ggccgccttc	1980
cgcggmtggt ccttcacgcg cctcaagacc cgcgagacgc cctcgctagg ctccgggttc	2040
gaccctact tcgtctactc gggctccatc ccctaccttg acggcacctt ctacctcaac	2100
cacaccttca agaaggcttc catcaccttc gactcctccg tcagctggcc cggcaacgac	2160
cgcctcctga cgcccaacga gttcgaaaac aagcgcaccg tcgacggaga ggggtacaac	2220
gtggcccagt gcaacatgac caaggactgg ttcttggtcc agatgctggc ccactacaac	2280
atcggctacc agggcttcta cgtgcccag ggctacaagg accgcatgta ctcttcttc	2340
cgcaacttcc agcccatgag ccgccaggtc gtggacgagg tcaactacaa ggactaccag	2400
gccgtcacc tggcctacca gcacaacaac tcgggcttcg tcggctacct cgcgccacc	2460
atgcgccagg gacagcccta ccccgccaac taccctacc cgctcatcgg caagagcgcc	2520

Sequence Listing as filed.txt

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tccagcaact tcatgtccat gggcgcgctc accgacctcg gccaaaacat gctttacgcc	2640
aactccgccc acgcgctaga catgaatttc gaagtcgacc ccatggatga gtccaccctt	2700
ctctatgttg tcttcgaagt cttcgacgtc gtccgagtgc accagcccca ccgcggcgctc	2760
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<210> 40
 <211> 2814
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 40	
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ctggggaaca agtttaggaa cccacgggtg gcacccacgc acgatgtgac caccgaccgc	180
agccagcggc tgacgtgcg cttcgtgccc gtggaccgcg aggacaacac ctactcgtac	240
aaagtgcgct acacgctggc cgtgggagac aaccgcgtgc tggacatggc cagcacctac	300
tttgacatcc gcggcggtg ggatcggggc cccagcttca aaccctactc cggcaccgcc	360
tacaacagcc tggtcccaa gggagcggc aacacctcac agtggataac caaagacaat	420
ggaactgata agacatacag ttttggaat gctccagtca gaggattgga cattacagaa	480
gagggctctc aaataggaac cgatgagtca gggggtgaaa gcaagaaaat ttttgcagac	540
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gaagacaagt atggaggcag agcgcttaaa cctgccacca acatgaaacc ctgctatggg	660
tctttcgcca agccaactaa tgctaaggga ggtcaggcta aaagcagaac caaggacgat	720
ggcactactg agcctgatat tgacatggcc ttctttgacg atcgcagtca gcaagctagt	780
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attatttaca aacctggcac tgatgaaaca agttcttctt tcaacttggg tcagcagtcc	900
atgcccaca gacccaacta cattggcttc agagacaact ttatcgggct catgtactac	960
aacagcactg gcaatatggg tgtactggcc ggtcaggcct cccagctgaa tgctgtgggtg	1020
gacttgcagg acagaaacac tgaactgtcc taccagctct tgcttgactc tctgggtgac	1080
agaaccaggt atttcagtat gtggaatcag gcggtggaca gctatgacct cgatgtgcgc	1140
attattgaaa atcacggtgt ggaggatgaa ctccccaaact attgcttccc tttgaatggt	1200
gtgggcttta cagatacatt ccagggaatt aagggttaaaa ctacaaataa cggaacagca	1260
aatgctacag agtgggaatc tgatactct gtcaataatg ctaatgagat tgccaagggc	1320
aatcctttcg ccatggagat caacatccag gccaacctgt ggcggaactt cctctacgcg	1380
aacgtggcgc tgtacctgcc cgactcctac aagtacacgc cggccaacat cacgctgccc	1440
accaacacca acacctacga ttacatgaac ggccgcgtgg tggcgccctc gctgggtggac	1500
gcctacatca acatcggggc gcgctggtcg ctggaccca tggacaacgt caacccttc	1560

Sequence Listing as filed.txt

aaccaccacc gcaacgcggg cctgcgctac cgctccatgc tcctgggcaa cgggcgctac	1620
gtgcccttcc acatccaggt gcccctaaag tttttcgcca tcaagagcct cctgctcctg	1680
cccgggtcct acacctacga gtggaacttc cgcaaggacg tcaacatgat cctgcagagc	1740
tccctcggca acgacctgcg cacggacggg gcctccatcg ccttcaccag catcaacctc	1800
tacgccacct tcttccccat ggcgacacac accgcctcca cgctcgaggc catgctgcgc	1860
aacgacacca acgaccagtc cttcaacgac tacctctcgg cggccaacat gctctacccc	1920
atcccggcca acgccaccaa cgtgcccata tccatcccct cgcgcaactg ggccgccttc	1980
cgcggatggt ccttcacgcg cctcaagacc cgcgagacgc cctcgctcgg ctccgggttc	2040
gaccttact tcgtctactc gggctccatc ccctacctcg acggcacctt ctacctcaac	2100
cacaccttca agaaggcttc catcaccttc gactcctccg tcagctggcc cggcaacgac	2160
cgctcctga cgcctaacga gttcgaaatc aagcgcaccg tcgacggaga ggggtacaac	2220
gtggccaggt gcaacatgac caaggactgg ttcttggtcc agatgctggc ccactacaac	2280
atcggtacc agggcttcta cgtgcccag ggctacaagg accgcatgta ctcttcttc	2340
cgaacttcc agcccatgag ccgccaggtc gtggacgagg tcaactacaa ggactaccag	2400
gccgtcacc tggcctacca gcacaacaac tcgggcttcg tcggctacct cgcgccacc	2460
atgcgccagg gccagcccta ccccgccaac taccctacc cgctcatcgg caagagcgcc	2520
gtcgccagcg tcacccagaa aaagtctctc tgcgaccggg tcatgtggcg catccccttc	2580
tccagcaact tcatgtccat gggcgcgctc accgacctcg gccagaacat gctctacgcc	2640
aactccgcc acgcgctaga catgaatttc gaagtcgacc ccatggatga gtccaccctt	2700
ctctatgttg tcttcgaagt cttcgacgtc gtccgagtgc accagcccca ccgcggcgtc	2760
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<210> 41
 <211> 2814
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<220>
 <221> misc_feature
 <222> (297)..(297)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (360)..(360)
 <223> n is a, c, g, or t

<220>
 <221> misc_feature
 <222> (887)..(887)
 <223> n is a, c, g, or t

<400> 41	
atggccaccc catcgatgct gcccagtggt gcgtacatgc acatcgccgg acaggacgct	60

Sequence Listing as filed.txt

tcggagtacc tgagtccggg tctggtgcag ttcgcccgcg ccacagacac ctacttcagt	120
ctggggaaca agtttaggaa cccacagggtg gcgcccacgc acgatgtgac caccgaccgc	180
agccagcggc tgacgctgcg cttcgtgccc gtggaccgcg aggacaacac ctactcgtac	240
aaagtgcgct acacgctggc cgtgggcgac aaccgcgtgc tggacatggc cagcacntac	300
tttgacatcc gcggcgtgct ggatcggggc cccagcttca aaccctactc cggcaccgcg	360
tacaacagcc tggctcccaa gggagcgccc aacacctcac agtggataac caaagacaat	420
ggaactgata agacatacag ttttgaaat gctccagtca gaggattgga cattacagaa	480
gagggctctc aaataggaac cgatgagtca gggggtaaaa gcaagaaaat ttttgacagac	540
aaaacctatc agcctgaacc tcagcttgga gatgaggaat ggcatagatac tattggagct	600
gaagacaagt atggaggcag agcgcttaaa cctgccacca acatgaaacc ctgctatggg	660
tccttcgcca agccaactaa tgctaagga ggctcaggcta aaagcagaac caaggacgat	720
ggcactactg agcctgatat tgacatggcc ttttttgacg atcgcagtca gcaagctagt	780
ttcagtccag aacttgtttt gtatactgag aatgtcgatc tggacacccc ggataccac	840
attatttaca aacctggcac tgatgaaaca agttcttctt tcaactnggg tcagcagtcc	900
atgcccaca gacccaatta cattggcttc agagacaact ttatcggact catgtactac	960
aacagcactg gcaatatggg tgtactggct ggacaggcct cccagctgaa tgctgtggtg	1020
gacttgcagg acagaaacac cgaactgtcc taccagctct tgcttgactc tctgggcgac	1080
agaaccaggt atttcagtat gtggaatcag gcggtggaca gctatgaccc cgatgtgcgc	1140
attattgaaa atcacggtgt ggaggatgaa cttcccaact attgcttccc tttgaatggt	1200
gtgggcttta cagatacatt ccagggaatt aagggttaaaa ctaccaataa cggaacagca	1260
aacgctacag agtgggaatc tgatacctct gtcaataatg ctaatgagat tgccaagggc	1320
aatcctttcg ccatggagat caacatccag gccaacctgt ggcggaactt cctctacgcg	1380
aacgtggcgc tgtacctgcc cgactcctac aagtacacgc cggccaacat cacgctgccc	1440
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gcctacatca acatcggggc gcgctggtcg ctggaccca tggacaacgt caacccttc	1560
aaccaccacc gcaacgcggg cctgcgatac cgctccatgc tcctgggcaa cgggcgctac	1620
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cccggtcct acacctacga gtggaacttc cgcaaggacg tcaacatgat cctgcagagc	1740
tccctcggca acgacctgcg cacggacggg gcctccatcg ccttcaccag catcaacctc	1800
tacgccacct tcttccccat ggcgcaaac accgcctcca cgctcgaggc catgctgcgc	1860
aacgacacca acgaccagtc cttcaacgac tacctctcgg cggccaacat gctctacccc	1920
atcccggcca acgccaccaa cgtgcccac tccatcccct cgcgcaactg ggccgccttc	1980
cgcggatggt ccttcacgcg cctcaagacc cgcgagacgc cctcgctcgg ctccgggttt	2040
gacccctact tcgtctactc gggctccatc ccctacctcg acggcacctt ctacctcaac	2100

Sequence Listing as filed.txt

cacaccttca agaaggtctc catcaccttc gactcctccg tcagctggcc cggcaacgac	2160
cgcctcctga cgcccaacga gttcgaaatc aagcgcaccg tcgacggaga ggggtacaac	2220
gtggcccagt gcaacatgac caaggactgg ttcctgggcc agatgctggc ccactacaac	2280
atcggctacc agggcttcta cgtgcccagag ggctacaagg accgcatgta ctctttcttc	2340
cgcaacttcc agcccatgag ccgccagggtc gtggacgagg tcaactacaa ggactaccag	2400
gccgtcacc cggcctacca gcacaacaac tcgggcttcg tcggctacct cgcgccacc	2460
atgcgccagg gccagcccta ccccgccaac taccctacc cgctcatcgg caagagcgcc	2520
gttgccagcg tcaccagaa aaagttcctc tgcgaccggg tcatgtggcg catccccttc	2580
tccagcaact tcatgtccat gggcgcgctc accgacctcg gccagaacat gctctacgcc	2640
aactccgccc acgcgctaga catgaatttc gaagtcgacc ccatggatga gtccaccctt	2700
ctctatgttg tcttcgaagt cttcgacgtc gtccgagtg accagcccca ccgcggcgtc	2760
atcgaggccg tctacctgcg cagcccttc tcggccggca acgccaccac ctaa	2814

<210> 42
 <211> 2814
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<220>
 <221> misc_feature
 <222> (1612)..(1612)
 <223> n is a, c, g, or t

<400> 42	
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tcggagtacc tgagtccggg tctggtgcag ttcgcccgcg ccacagacac ctacttcagt	120
ctggggaaca agtttaggaa cccacgggtg gcgcccacgc acgatgtgac caccgaccgc	180
agccagcgac tgacgctgcg cttcgtgccc gtggaccgcg aggacaacac ctactcgtac	240
aaagtgcgct acacgctggc cgtgggcgac aaccgcgtgc tggacatggc cagcacctac	300
tttgacatcc gcggcgctgct ggaccggggc cctagcttca aaccctactc cggcaccgcc	360
tacaacagcc tggcccccaa gggagcacc aacacctcac agtgggtgac caaagacaat	420
gggactgata aaacatacag ctttggtaat gtcctgtca gaggttgga cattacagaa	480
gagggctctc aaataggaac cgatgactct tcaaccgaaa gcaagaaaat ttttgagac	540
aaaacatatc agcctgaacc tcaggttgga gatgaggaat ggcacgacac cattggggct	600
gaagacaaat atggaggcag agctcttaaa cctgccacca acatgaaacc ctgttatggt	660
tcttttgcca agccaactaa tgctaaggga ggtcaggcta aaaccagaac caaagacgat	720
ggaactaccg agcctgatat tgacatggcc ttctttgacg atcgagtcg gcaggctagt	780
ttcagcccag aacttgtttt gtatactgag aatgtggatt tggagacccc agataccac	840
attattttaca aaccgggtac tgatgaaaca agttcttctt tcaacttggg tcagcaatcc	900
atgcccaca gaccacaata cattggtttc agagacaact ttattggctt gatgtactac	960

Sequence Listing as filed.txt

aacagcactg gcaacatggg tgtgctggct ggtaggctt ctcagctgaa tgccgtggtt	1020
gacttgcaag acagaaacac cgagctgtcc taccagctct tgcttgactc tctgggacgac	1080
agaacccggt atttcagtat gtggaatcag gcggtggaca gctatgatcc tgatgtgcgc	1140
attattgaaa accatggtgt ggaagatgaa ctgccaaact attgcttccc tttaaatggt	1200
gtgggcttta cagacacatt ccagggaatt aagggttaaaa ctaccaacaa cggtactgct	1260
aatgctacag agtgggaatc tgatacttct gtcaataatg ccaatgagat tgccaagggt	1320
aatccattcg ccatggaaat caacatccaa gccaacctgt ggaggaactt cctctatgcc	1380
aacgtggccc tgtacttgcc cgattcttac aagtacacgc cggccaacgt caccctgccc	1440
accaacacca acacctacga gtacatgaac ggccgggtgg tggcgccctc gctggtggac	1500
tcctacatca acatcggggc gcgctggtcg ctggaccca tggacaacgt caatcccttc	1560
aaccaccacc gcaatgcggg gctgcgtac cgctccatgc tcctgggcaa cnggcgcttc	1620
gtgcccttcc acatccaggt gccccagaaa tttttcgcca tcaagagcct cctgctcctg	1680
cccgggtcct acacctacga gtggaacttc cgcaaggacg tcaacatgat cctgcagagc	1740
tccctcggca acgacctgcg cacggacggg gcctccatct ccttcaccag catcaacctc	1800
tacgccacct tcttccccat ggcgcacaac acggcctcca ctctcgaggc catgctgcgc	1860
aacgacacca acgaccagtc cttcaacgac tacctctcgg cggccaacat gctctacccc	1920
atcccggcca acgccaccaa cgtgcccata tccatcccct cgcgcaactg ggccgccttc	1980
cgcggctggt ccttcacgcg cctcaagacc aaggagacgc cctcgctggg ctccgggttc	2040
gacccctact tcgtctactc gggctccatc ccctacctcg acggcacctt ctacctcaac	2100
cacaccttca agaaggcttc catcaccttc gactcctccg tcagctggcc cggcaacgac	2160
cggctcctga cgcacaacga gttcgaaatc aagcgcaccg tcgacggcga gggatacaac	2220
gtggcccagt gcaacatgac caaggactgg ttcctggtcc agatgctggc ccactacaac	2280
atcggctacc agggcttcta cgtgcccag ggctacaagg accgcatgta ctctttcttc	2340
cgaacttcc agcccatgag ccgccagggt gtggacgagg tcaactacaa ggactaccag	2400
gccgtcacc tgccctacca gcacaacaac tcgggcttcg tcggctacct cgcgccacc	2460
atgcgtcagg gccagcccta ccccgccaac taccctacc cgctcatcgg caagagcgcc	2520
gtcaccagcg tcaccagaa aaagtctctc tgcgaccgcg tcatgtggcg catccccctc	2580
tccagcaact tcatgtccat gggcgcgctc accgacctcg gccagaacat gctctatgcc	2640
aactccgccc acgcgctaga catgaatttc gaagtcgacc ccatggatga gtccaccctt	2700
ctctatgttg tcttcgaagt cttcgacgtc gtccgagtgc accagcccca ccgcggcgctc	2760
atcgaggccg tctacctgcg ccccccttc tcggccggta acgccaccac ctaa	2814

<210> 43

<211> 2886

<212> DNA

<213> Adenoviridae - Mastadenovirus

Sequence Listing as filed.txt

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tcccagcgcc tgacgctgcg gttcatcccc gtggaccgcg aggacaccgc gtactcttac 240
aaggcgcggt tcaccctggc cgtgggagac aaccgcgtgc tggacatggc ctccacctac 300
tttgacatcc gcggcggtgct ggacaggggc cccaccttca agccctactc cggcaccgccc 360
tacaactccc tggcccccaa gggcgcccc aactcctgcg agtgggagca agtggagcca 420
gctgaagagg cagcagaaaa tgaagatgaa gaagaagaag aggatgttgt tgatcctcag 480
gaacaggagc ccactactaa aacacatgta tatgctcaag ctcccccttc tggcgagaaa 540
attaccaaag atggtctgca aataggaact gaggctacgg cagcaggagg cactaaagac 600
ttatttgtag accctacatt ccagccagaa cccaagttg gcgaatctca gtggaatgag 660
gcggatgcta cagcagctgg aggtagagt ctcaaaaaga ccactcccat gaaaccttgc 720
tatggctcat atgcccggcc cacaatgcc aatggggggc aagggtgtgct aaaggcaaat 780
gcccagggag tgctcgagtc tcaggttgag atgcagttct tttccacttc taaaatgcc 840
acaaacgagc aaaacaacat ccagcccaaa ttggtgctgt acagcgagga tgtgcatatg 900
gagaccccag acacacacat ctctacaag cctacaaaaa gcgatgataa ttcaaaagtc 960
atgctgggtc agcagtcctat gcccaacagg ccaaattaca tcgccttcag agacaacttt 1020
atcgggctca tgtattataa cagcactggc aacatggggg tgctggcagg tcaggcctca 1080
cagttgaatg cagtgggtga cctgcaagac agaaacacag aactgtccta ccagctcttg 1140
cttgattcca tgggagacag aaccagatac ttttccatgt ggaatcaggc cgtggacagt 1200
tatgacccag atgtcagaat tattgaaaat catggaaccg aagatgagct gcccactat 1260
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aacgtggaaa tctctgacaa cccaacacc tacgactaca tgaacaagcg agtgggtggc 1560
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aacgtcaacc ctttaacca ccaccgcaat gcgggcctgc gctaccgctc catgcttctg 1680
ggcaacgggc gctacgtgcc ctccacatc cagggtgccc agaagttctt tgccatcaag 1740
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atggtcctgc agagctctct gggcaacgac ctcagggtcg acggggccag catcaagttc 1860
gagagcatct gcctctacgc caccttcttc cccatggccc acaacacggc ctccacgctc 1920
gaggccatgc tcaggaacga caccaacgac cagtccttca acgactacct ctccgcccgc 1980

Sequence Listing as filed.txt

aacatgctct	accccatccc	cgccaacgcc	accaacgtcc	ccatctccat	cccctcgcgc	2040
aactgggcgg	ccttccgcgg	ctgggccttc	acccgcctta	agaccaagga	gacccccctcc	2100
ctgggctcgg	gtttcgaccc	ctactacacc	tactcgggct	ccatacccta	cctggacgga	2160
accttctacc	tcaaccacac	tttcaagaag	gtctcgggtca	ccttcgactc	ctcgggtcagc	2220
tggccgggca	acgaccgcct	gctcaccccc	aacgagttcg	agatcaagcg	ctcgggtcgac	2280
ggggagggct	acaacgtagc	ccagtgcac	atgaccaagg	actggttcct	catccagatg	2340
ctggccaact	acaacatcgg	ctatcagggc	ttctacatcc	cagagagcta	caaggacagg	2400
atgtactcct	tctttaggaa	cttccagccc	atgagccggc	aggtggtgga	cgaaaccaag	2460
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tacctcggcc	ccaccatgcg	cgagggacag	gcctaccccc	ccaacttccc	ctacccgctc	2580
attggcaaga	ccgcggtcga	cagcatcacc	cagaaaaagt	tcctctgcga	ccgcaccctc	2640
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aacctgctct	atgccaaact	cgcccacgcg	ctcgacatga	ccttcgaggt	cgaccccatg	2760
gacgagccca	cccttctcta	tgttctgttc	gaagtctttg	acgtggttcg	ggtccaccag	2820
ccgcaccgcg	gcgtcatcga	gaccgtgtac	ctgcgcacgc	ccttctcggc	cggcaacgcc	2880
accacc						2886

<210> 44
 <211> 1596
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 44	
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gcgggtggcgg	cgccgatgca
gcccccgctg	gaggcgcctt
acgtgcccc	gcggtacctg
120	
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cagcattcgt	tactcggagc
tggcaccctt	gtacgatacc
180	
acccggttgt	acctggtgga
caacaagtcg	gcggacatcg
cctcgtgaa	ctaccagaac
240	
gaccacagca	acttcctgac
caccgtgggtg	cagaacaacg
atttcacccc	cacggaggcc
300	
agcaccaga	ccatcaactt
tgacgagcgc	tcgcgggtggg
gcggccagct	gaaaaccatc
360	
atgcacacca	acatgcccaa
cgtgaacgag	ttcatgtaca
gcaacaagtt	caaggcgcg
420	
gtgatggtct	cgcgcaagac
ccccaacggg	gtcgcggtag
gggatgatta	tgatggtggt
480	
caggacgagc	tgacctacga
gtgggtggag	tttgagctgc
ccgagggcaa	cttctcgggtg
540	
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gaacaacgcc	atcatcgaca
actacttggc	ggtggggcgg
600	
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cgacatcggc	gtgaagttcg
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gctgggtgatg	ccgggcgtgt
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cggctgcggc	gtggacttca
ccgagagccg	cctcagcaac
780	
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gcagcccttc	caggagggct
tccagatcct	gtacgaggac
840	
ctggaggggg	gcaacatccc
cgcgctcttg	gatgtcgaag
cctacgagaa	aagcaaggag
900	

Sequence Listing as filed.txt

gagagcgccg ccgcgggcgac cgcagccgta gccaccgcct ctaccgaggt gcggggcgat	960
aattttgcta gcgccgcagc agtggccgag gcggctgaaa ccgaaagtaa gatagtgatc	1020
cagccggtgg agaaggacag caaggacagg agctacaacg tgctcgcgga caagaaaaac	1080
accgcctacc gcagctggta cctggcctac aactacggcg accccgagaa gggcgtgcgc	1140
tcctggacgc tgctcaccac ctcgacgctc acctgcggcg tggagcaagt ctactggtcg	1200
ctgcccagaca tgatgcaaga cccggtcacc ttccgctcca cgcgtcaagt tagcaactac	1260
ccggtgggtgg gcgccgagct cctgcccgtc tactccaaga gcttcttcaa cgagcaggcc	1320
gtctactcgc agcagctgcg cgccttcacc tcgctcacgc acgtcttcaa ccgcttcccc	1380
gagaaccaga tcctcgctcg cccgcccgcg cccaccatta ccaccgtcag tgaaaacggt	1440
cctgctctca cagatcacgg gaccctgccg ctgcgagca gtatccgggg agtccagcgc	1500
gtgaccgtca ctgacgccag acgccgcacc tgcccctacg tctacaaggc cctgggcgta	1560
gtcgcgccgc gcgtcctctc gagccgcacc ttctaa	1596

<210> 45
 <211> 1626
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 45	
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gcggtggcg tgggcgatgca gcccccgctg gaggcgcctt acgtgcccc gcggtacctg	120
gcgcctacgg agggggcgga cagcattcgt tactcggagc tggcaccctt gtacgatacc	180
acccggttgt acctggtgga caacaagtcg gcggacatcg cctcgctgaa ctaccagaac	240
gaccacagca acttcctgac caccgtggtg cagaacaacg atttcacccc cacggaggcc	300
agcaccagca ccatcaactt tgacgagcgc tcgcggtggg gcggccagct gaaaaccatc	360
atgcacacca acatgcccac cgtgaacgag ttcatgtaca gcaacaagtt caaggcgcg	420
gtgatggtct cgcgcaagac cccaacggg gtgacggtag gggatgatta tgatggtagt	480
caggacgagc tgacctacga gtgggtggag tttgagctgc ctgagggcaa cttctcggtg	540
accatgacca tcgatctgat gaacaacgcc atcatcgaca actacttggc ggtggggcg	600
cagaacgggg tgctggaaag cgacatcggc gtgaagtctg acacgcgcaa cttccggctg	660
ggctgggacc ccgtgaccga gctggtgatg ccgggcgtgt acaccaacga ggccttcac	720
cccgacatcg tcctgctgcc cggctgcggc gtggacttca ccgagagccg cctcagcaac	780
ctgctgggca tccgcaagcg gcagcccttc caggagggtt tccagatcct gtacaggac	840
ctggaggggg gcaacatccc cgcgctcttg gatgtcgaag cctatgagaa aagcaaggag	900
gatagcgccg cagcgacgac cgcagccgtg gctactgccg cgaccaccga tgcagatgca	960
actactacca ggggcgatac atttgccacc caggcgagg aagcagccgc ctagcggcg	1020
accgatgata gtgaaagtaa gatagtcatc aagccggtgg agaaggacag caaggacagg	1080

Sequence Listing as filed.txt

agctacaacg tgctcgcgga caagaaaaac accgcctacc gcagctggta cctggcctac	1140
aactacggcg accccgagaa gggcgtgcgc tcctggacgc tgctcaccac ctcggacgtc	1200
acctgcggcg tggagcaagt ctactggtcg ctgcccgcaca tgatgcaaga cccggtcacc	1260
ttccgctcca cgcgtcaagt tagcaactac ccggtggtgg gcgccgagct cctgcccgtc	1320
tactccaaga gcttcttcaa cgagcaggcc gtctactcgc agcagctgcg cgccttcacc	1380
tcgctcacgc acgtcttcaa ccgcttcccc gagaaccaga tcctcgttcg cccgcccgcg	1440
cccaccatta ccaccgtcag tgaaaacgtt cctgctctca cagatcacgg gaccctgccg	1500
ctgcgcagca gtatccgggg agtcacgcgc gtgaccgtca ctgacgccag acgccgcacc	1560
tgcccctacg tctacaaggc cctggggcgta gtcgcgccgc gcgtcctctc gagccgcacc	1620
ttctaa	1626

<210> 46
 <211> 1599
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 46	
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gcggtggcgg cggcgatgca gccccgctg gaggcgcctt acgtgcccc gcggtacctg	120
gcgcctacgg aggggcggaa cagcattcgt tactcggagc tggcaccctt gtacgatacc	180
acccggttgt acctggtgga caacaagtcg gcggacatcg cctcgtgaa ctaccagaac	240
gaccacagca acttcctgac caccgtggtg cagaacaacg atttcacccc cacggaggcc	300
agcaccacaga ccatcaactt tgacgagcgc tcgcggtggg gcggccagct gaaaaccatc	360
atgcacacca acatgcccaa cgtgaacgag ttcatgtaca gcaacaagtt caaggcgcgg	420
gtgatggtct cgcgcaagac ccccaacggg gtcacagtaa cagatggtag tcaggacgag	480
ctgacctacg agtgggtgga gtttgagctg cccgagggca acttctcggg gaccatgacc	540
atcgatctga tgaacaacgc catcatcgac aactacttgg cgggtggggcg gcagaacggg	600
gtgctggaga gcgacatcgg cgtgaagtgc gacacgcgca acttcgggct gggctgggac	660
cccgtgaccg agctggtgat gccgggcgtg tacaccaacg aggccttcca ccccgacatc	720
gtcctgctgc ccggtgcgg cgtggacttc accgagagcc gcctcagcaa cctgctgggc	780
atccgcaagc ggcagccctt ccaggagggc ttccagatcc tgtacgagga cctggagggg	840
ggcaacatcc ccgcgtctt ggatgtcgaa gcctacgaga aaagcaagga ggatagcacc	900
gccgtggcta ccgccgcgac tgtggcagat gccactgtca ccaggggcca tacattcgcc	960
acccaggcgg aggaagcagc cgccctagcg gcgaccgatg atagtgaaag taagatagtt	1020
atcaagccgg tggagaagga cagcaaggac aggagctaca acgttctatc ggatggaaag	1080
aacaccgcct accgcagctg gtacctggcc tacaactacg gcgacccga gaagggcggtg	1140
cgctcctgga cgctgctcac cacctcggac gtcacctgcg gcgtggagca agtctactgg	1200
tcgctgcccc acatgatgca agaccgggtc accttccgct ccacgcgtca agttagcaac	1260

Sequence Listing as filed.txt

tacccggttg	tgggcgccga	gctcctgccc	gtctactcca	agagcttctt	caacgagcag	1320
gccgtctact	cgcagcagct	gcgcgccttc	acctcgctca	cgcacgtctt	caaccgcttc	1380
cccgagaacc	agatcctcgt	ccgcccgcgc	gcgcccacca	ttaccaccgt	cagtgaaaac	1440
gttcctgctc	tcacagatca	cgggaccctg	ccgctgcgca	gcagtatccg	gggagtccag	1500
cgcgtgaccg	tcactgacgc	cagacgccgc	acctgcccct	acgtctacaa	ggccctgggc	1560
gtagtcgcgc	cgcgcgtcct	ctcgagccgc	accttctaa			1599

<210> 47
 <211> 1587
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 47	
atgatgaggc	gcgtgtaccc
ggagggctct	cctccctcgt
acgagagcgt	gatgcagcag
	60
gcggtggcgg	cggcgatgca
gccccgcgtg	gaggcgcttc
acgtgcccc	gcggtacctg
	120
gcgcctacgg	aggggcgga
cagcattcgt	tactcggagc
tggcaccctt	gtacgatacc
	180
acccggttgt	acctggtgga
caacaagtcg	gcggacatcg
cctcgctgaa	ctaccagaac
	240
gaccacagca	acttcctgac
caccgtgggtg	cagaacaacg
atttcacccc	cacggaggcc
	300
agcaccacaga	ccatcaactt
tgacgagcgc	tcgcggtggg
gcggccagct	gaaaaccatc
	360
atgcacacca	acatgcccac
cgtgaacgag	ttcctgtaca
gcaacaagtt	caaggcgcg
	420
gtgatggtct	cgcgcaagac
ccccaacggg	gtcacagtaa
cagatggtag	tcaggacgag
	480
ctgacctacg	agtgggtgga
gtttgagctg	cccaggggca
acttctcggt	gacctgacc
	540
atcgatctga	tgaacaacgc
cattatcgac	aattacttgg
cgggtggggcg	gcagaacggg
	600
gtgctggaga	gcgacatcgg
cgtgaagtgc	gacacgcgca
acttcaggct	cggttgggac
	660
cccgtgaccg	agctgggtcat
gccggggcgtg	tacaccaacg
aggccttcca	ccccgacatc
	720
gtcctgctgc	ccggctgcgg
cgtggacttc	accgagagcc
gcctcagcaa	cctgctgggc
	780
attcgcaaga	ggcagccctt
ccaggagggt	ttccagatca
tgtacgagga	tctggagggg
	840
ggcaacatcc	ccgcgctcct
ggatgtcgag	gcctacgaga
aaagcaagga	ggatagcgcc
	900
gccgcggcga	ccgcagccgt
ggccaccgcc	tctaccgagg
tgcggggcga	taattttgct
	960
agcgcgcgg	cagtggccga
ggcggtgaa	accgaaagta
agatagtgat	ccagccggtg
	1020
gagaaggaca	gcaaggacag
gagctacaac	gtgctcgcg
acaagaaaa	caccgcctac
	1080
cgcagctggt	acctggccta
caactacggc	gaccccgaga
agggcgtg	ctcctggacg
	1140
ctgctacca	cctcgacgt
cacctgcggc	gtggagcaag
tctactggtc	gctgcccga
	1200
atgatgcaag	acccggtcac
cttccgctcc	acgcgtcaag
ttagcaacta	cccgggtggtg
	1260
ggcgccgagc	tcctgcccgt
ctactccaag	agcttcttca
acgagcaggc	cgtctactcg
	1320
cagcagctgc	gcgccttcac
ctcgctcacg	cacgtcttca
accgcttccc	cgagaaccag
	1380
atcctcgtcc	gcccgcgcgc
gcccaccatt	accaccgtca
gtgaaaacgt	tcctgctctc
	1440

Sequence Listing as filed.txt

acagatcacg ggaccctgcc gctgcgagc agtatccggg gagtccagcg cgtgaccgtc	1500
actgacgcc aacgcccgcac ctgcccctac gtctacaagg ccctggggcgt agtcgcgccg	1560
cgcgtcctct cgagccgcac cttctaa	1587

<210> 48
 <211> 1608
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 48	
atgatgaggc gtgcgtagcc ggaggggtcct cctccctcgt acgagagcgt gatgcagcag	60
gcgatggcgg cggcgggcgg gatgcagccc ccgctggagg ctccctacgt gccccgcgg	120
tacctggcgc ctacggaggg gcggaacagc attcgttact cggagctggc acccttgtac	180
gataccaccc ggttgtagct ggtggacaac aagtcggcgg acatcgctc gctgaactac	240
cagaacgacc acagcaactt cctgaccacc gtggtgcaga acaatgactt ccccccacg	300
gaggccagca cccagaccat caactttgac gagcgctcgc ggtggggcgg ccagctgaaa	360
accatcatgc acaccaacat gcccacgtg aacgagttca tgtacagcaa caagttcaag	420
gcgcgggtca tggctctccg caagaccccc aacgggggtga cagtgcaga ggattatgat	480
ggtagtcagg atgagctgaa atacgagtg gtggagttt agctgcccga aggcaacttc	540
tcggtgacca tgactatcga cctgatgaac aacgccatca tcgacaatta cttggcggtg	600
gggcggcaga acgggggtgct ggagagcgac atcggcgtga agttcgacac taggaacttc	660
aggctgggct gggacccccgt gaccgagctg gtcagtcccg ggggtgtacac caacgaggcc	720
ttccatcccc atattgtctt gctgcccggc tgcgggggtg acttcaccga gagccgcctc	780
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gaggatctgg aggggggtaa catccccgcg ctccctggatg tcgacgccta tgagaaaagc	900
aaggaggaga gcgccgccgc ggcgaccgca gccgtagcca ccgcctctac cgaggtcagg	960
ggcgataatt ttgctagcgc cgcagcagtg gcagcgccg aggcggctga aaccgaaagt	1020
aagatagtca ttcagccggt ggagaaggat agcaaagaca ggagctacaa cgtgctgccg	1080
gacaagataa acaccgccta ccgcagctgg tacctggcct acaactatgg cgaccccgag	1140
aagggcgtgc gtcctggac gctgctcacc acctcgagc tcacctgcgg cgtggagcaa	1200
gtctactggc cgtgcccga catgatgcaa gaccgggtca cttccgctc cacgcgtcaa	1260
gttagcaact acccggtggg gggcgccgag ctccctgccg tctactccaa gagcttcttc	1320
aacgagcagg ccgtctactc gcagcagctg cgcgccttca cctcgctcac gcacgtcttc	1380
aaccgcttcc ccgagaacca gatcctcgtc cggccggccg cgcccacat taccaccgtc	1440
agtgaaaacg ttcctgctct cacagatcac gggaccctgc cgtgcgag cagtatccgg	1500
ggagtccagc gcgtgaccgt tactgacgcc agacgccgca cctgccccta cgtctacaag	1560
gccctgggca tagtcgcgcc gcgcgtcctc tcgagccgca cttctaa	1608

Sequence Listing as filed.txt

<210> 49
 <211> 1743

<212> DNA

<213> Adenoviridae - Mastadenovirus

<400> 49

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atgcggcgcg cggcgatgta ccacgagggga cctcctccct cttatgagag cgtggtgggc      60
gcggcgggcg cctctccctt tgcgtcgag ctggagccgc cgtacgtgcc tccgcggtac      120
ctgcggccta cggggggaag aaacagcatc cgttactcgg agctggcgcc cctgtacgac      180
accacccggg tgtacctggt ggacaacaag tcggcgagcg tggcctccct gaactaccag      240
aacgaccaca gcaatTTTTT gaccacggtc atccagaaca atgactacac cccgagcgag      300
gccagcacc agaccatcaa tctggatgac cggtcgcact ggggcggcga cctgaaaacc      360
atcctgcaca ccaacatgcc caacgtgaac gagttcatgt tcaccaataa gttcaaggcg      420
cgggtgatgg tgtcgcgctc gcacaccaag gacgaccggg tggagctgaa gtacgagtgg      480
gtagagttcg agctgcccga gggcaactac tcggagacca tgaccataga cctgatgaac      540
aacgcgatcg tggagcacta tctgaaagtg ggcaggcaga acggggtcct ggagagcgac      600
atcggggtca agttcgacac caggaacttc cgctggggc tggaccgggt caccgggctg      660
gttatgccc ggggtctacac caacgaggcc ttccaccccg acatcatcct gctgcccggc      720
tgcggggtgg acttcaccta cagccgcctg agcaacctgc tgggcatccg caagcggcag      780
cccttccagg agggcttcag gatcacctac gaggacctgg aggggggcaa catccccgcg      840
ctcctggatg tggaggccta ccaggatagc ttgaaggaag aagaggcggg agagggcagc      900
ggcgggtggc cggtcagga ggagggcggg gcctcctctg aggcctctgc ggaccagcc      960
gctgccgccg aggcggaggc ggccgacccc gcgatggtgg tagaggaaga gaaggatatg     1020
aacgacgagg cggtgcgagg cgacaccttt gccactcggg gggaggagaa gaaagcggag     1080
gccgaggccg cggcagagga ggcggcagca gcggcgggcg cagtagaggc ggcggccgag     1140
gcggagaagc cccccaagga gcccgtgatt aagcccctga ccgaagatag caagaagcgc     1200
agttacaacg tgctcaagga cagcaccaac accgagtacc gcagctggta cctggcctac     1260
aactacggcg acccggcgac gggggtgcgc tcctggaccc tgctgtgtac gccggacgtg     1320
acctgcggct cggagcaggt gtactggtcg ctgccgaca tgatgcaaga ccccgtgacc     1380
ttccgctcca cgcggcaggt cagcaacttc ccggtggtgg gcgccgagct gctgcccgtg     1440
cactccaaga gtttctacaa cgaccaggcc gtctactccc agtcatccg ccagttcacc     1500
tctctgaccc acgtgttcaa tcgctttcct gagaaccaga ttctggcgcg cccgcccgcc     1560
cccaccatca ccaccgtcag tgaaaacgtt cctgctctca cagatcacgg gacgctaccg     1620
ctgcgcaaca gcatcggagg agtccagcga gtgaccgtaa ctgacgccag acgccgcacc     1680
tgcccctacg tttacaaggc cctgggcata gtctcgccgc gcgtcctttc cagccgcact     1740
ttt                                                                 1743

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<210> 50

Sequence Listing as filed.txt

<211> 577

<212> PRT

<213> Adenoviridae - Mastadenovirus

<400> 50

Met Lys Arg Ala Lys Thr Ser Asp Glu Thr Phe Asn Pro Val Tyr Pro
1 5 10 15

Tyr Asp Thr Glu Asn Gly Pro Pro Ser Val Pro Phe Leu Thr Pro Pro
20 25 30

Phe Val Ser Pro Asp Gly Phe Gln Glu Ser Pro Pro Gly Val Leu Ser
35 40 45

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

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

Gln Asp Val Thr Thr Val Thr Pro Pro Leu Lys Lys Thr Lys Thr Asn
85 90 95

Leu Ser Leu Gln Thr Ser Ala Pro Leu Thr Val Ser Ser Gly Ser Leu
100 105 110

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

Met Gln Ser Gln Ala Pro Leu Thr Val Gln Asp Ala Lys Leu Gly Leu
130 135 140

Ala Thr Gln Gly Pro Leu Thr Val Ser Glu Gly Lys Leu Thr Leu Gln
145 150 155 160

Thr Ser Ala Pro Leu Thr Ala Ala Asp Ser Ser Thr Leu Thr Val Ser
165 170 175

Ala Thr Pro Pro Leu Ser Thr Ser Asn Gly Ser Leu Ser Ile Asp Met
180 185 190

Gln Ala Pro Ile Tyr Thr Thr Asn Gly Lys Leu Ala Leu Asn Ile Gly
195 200 205

Ala Pro Leu His Val Val Asp Thr Leu Asn Ala Leu Thr Val Val Thr
210 215 220

Gly Gln Gly Leu Thr Ile Asn Gly Arg Ala Leu Gln Thr Arg Val Thr
225 230 235 240

Gly Ala Leu Ser Tyr Asp Thr Glu Gly Asn Ile Gln Leu Gln Ala Gly
245 250 255

Sequence Listing as filed.txt

Gly Gly Met Arg Ile Asp Asn Asn Gly Gln Leu Ile Leu Asn Val Ala
260 265 270

Tyr Pro Phe Asp Ala Gln Asn Asn Leu Ser Leu Arg Leu Gly Gln Gly
275 280 285

Pro Leu Ile Val Asn Ser Ala His Asn Leu Asp Leu Asn Leu Asn Arg
290 295 300

Gly Leu Tyr Leu Phe Thr Ser Gly Asn Thr Lys Lys Leu Glu Val Asn
305 310 315 320

Ile Lys Thr Ala Lys Gly Leu Phe Tyr Asp Gly Thr Ala Ile Ala Ile
325 330 335

Asn Ala Gly Asp Gly Leu Gln Phe Gly Ser Gly Ser Asp Thr Asn Pro
340 345 350

Leu Gln Thr Lys Leu Gly Leu Gly Leu Glu Tyr Asp Ser Asn Lys Ala
355 360 365

Ile Ile Thr Lys Leu Gly Thr Gly Leu Ser Phe Asp Asn Thr Gly Ala
370 375 380

Ile Thr Val Gly Asn Lys Asn Asp Asp Lys Leu Thr Leu Trp Thr Thr
385 390 395 400

Pro Asp Pro Ser Pro Asn Cys Arg Ile Asn Ser Glu Lys Asp Ala Lys
405 410 415

Leu Thr Leu Val Leu Thr Lys Cys Gly Ser Gln Val Leu Ala Ser Val
420 425 430

Ser Val Leu Ser Val Lys Gly Ser Leu Ala Pro Ile Ser Gly Thr Val
435 440 445

Thr Ser Ala Gln Ile Val Leu Arg Phe Asp Glu Asn Gly Val Leu Leu
450 455 460

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

Ser Thr Glu Gly Thr Ala Tyr Thr Asn Ala Val Gly Phe Met Pro Asn
485 490 495

Leu Thr Ala Tyr Pro Lys Thr Gln Ser Gln Thr Ala Lys Ser Asn Ile
500 505 510

Val Ser Gln Val Tyr Leu Asn Gly Asp Lys Thr Lys Pro Met Thr Leu
515 520 525

Sequence Listing as filed.txt

Thr Ile Thr Leu Asn Gly Thr Asn Glu Thr Gly Asp Ala Thr Val Ser
530 535 540

Thr Tyr Ser Met Ser Phe Ser Trp Asn Trp Asn Gly Ser Asn Tyr Ile
545 550 555 560

Asn Asp Thr Phe Gln Thr Asn Ser Phe Thr Phe Ser Tyr Ile Ala Gln
565 570 575

Glu

<210> 51
<211> 955
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 51

Met Ala Thr Pro Ser Met Met Pro Gln Trp Ser Tyr Met His Ile Ser
1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
20 25 30

Arg Ala Thr Asp Ser Tyr Phe Ser Leu Ser Asn Lys Phe Arg Asn Pro
35 40 45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Ile Pro Val Asp Arg Glu Asp Thr Ala Tyr Ser Tyr
65 70 75 80

Lys Ala Arg Phe Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ser Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Pro Cys Glu Trp Asp Glu Ala Val Thr Ala Val Asp Ile
130 135 140

Asn Leu Asp Glu Leu Gly Glu Asp Glu Asp Asp Ala Glu Gly Glu Ala
145 150 155 160

Glu Gln Gln Lys Ser His Val Phe Gly Gln Ala Pro Tyr Ser Gly Gln
165 170 175

Sequence Listing as filed.txt

Asn Ile Thr Lys Glu Gly Ile Gln Ile Gly Val Asp Thr Thr Ser Gln
180 185 190

Ala Gln Thr Pro Leu Tyr Ala Asp Lys Thr Phe Gln Pro Glu Pro Gln
195 200 205

Val Gly Glu Ser Gln Trp Asn Glu Thr Glu Ile Asn Tyr Gly Ala Gly
210 215 220

Arg Val Leu Lys Lys Thr Thr Leu Met Lys Pro Cys Tyr Gly Ser Tyr
225 230 235 240

Ala Arg Pro Thr Asn Glu Asn Gly Gly Gln Gly Ile Leu Leu Glu Lys
245 250 255

Glu Gly Gly Lys Pro Glu Ser Gln Val Glu Met Gln Phe Phe Ser Thr
260 265 270

Thr Gln Ala Ala Ala Ala Gly Asn Ser Asp Asn Leu Thr Pro Lys Val
275 280 285

Val Leu Tyr Ser Glu Asp Val His Leu Glu Thr Pro Asp Thr His Ile
290 295 300

Ser Tyr Met Pro Thr Ser Asn Glu Ala Asn Ser Arg Glu Leu Leu Gly
305 310 315 320

Gln Gln Ala Met Pro Asn Arg Pro Asn Tyr Ile Ala Phe Arg Asp Asn
325 330 335

Phe Ile Gly Leu Met Tyr Tyr Asn Ser Thr Gly Asn Met Gly Val Leu
340 345 350

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

Asn Thr Glu Leu Ser Tyr Gln Leu Leu Leu Asp Ser Met Gly Asp Arg
370 375 380

Thr Arg Tyr Phe Ser Met Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro
385 390 395 400

Asp Val Arg Ile Ile Glu Asn His Gly Thr Glu Asp Glu Leu Pro Asn
405 410 415

Tyr Cys Phe Pro Leu Gly Gly Ile Ile Asn Thr Glu Thr Leu Thr Lys
420 425 430

Val Lys Pro Lys Thr Gly Gln Asp Ala Gln Trp Glu Lys Asp Thr Glu
435 440 445

Sequence Listing as filed.txt

Phe Ser Glu Lys Asn Glu Ile Arg Val Gly Asn Asn Phe Ala Met Glu
450 455 460

Ile Asn Leu Asn Ala Asn Leu Trp Arg Asn Phe Leu Tyr Ser Asn Val
465 470 475 480

Ala Leu Tyr Leu Pro Asp Lys Leu Lys Tyr Thr Pro Ala Asn Val Gln
485 490 495

Ile Ser Ser Asn Ser Asn Ser Tyr Asp Tyr Met Asn Lys Arg Val Val
500 505 510

Ala Pro Gly Leu Val Asp Cys Tyr Ile Asn Leu Gly Ala Arg Trp Ser
515 520 525

Leu Asp Tyr Met Asp Asn Val Asn Pro Phe Asn His His Arg Asn Ala
530 535 540

Gly Leu Arg Tyr Arg Ser Met Leu Leu Gly Asn Gly Arg Tyr Val Pro
545 550 555 560

Phe His Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys Asn Leu Leu
565 570 575

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

Asn Met Val Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg Val Asp Gly
595 600 605

Ala Ser Ile Lys Phe Glu Ser Ile Cys Leu Tyr Ala Thr Phe Phe Pro
610 615 620

Met Ala His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp
625 630 635 640

Thr Asn Asp Gln Ser Phe Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu
645 650 655

Tyr Pro Ile Pro Ala Asn Ala Thr Asn Val Pro Ile Ser Ile Pro Ser
660 665 670

Arg Asn Trp Ala Ala Phe Arg Gly Trp Ala Phe Thr Arg Leu Lys Thr
675 680 685

Lys Glu Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr Tyr Thr Tyr
690 695 700

Ser Gly Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu Asn His Thr
705 710 715 720

Sequence Listing as filed.txt

Phe Lys Lys Val Ser Val Thr Phe Asp Ser Ser Val Ser Trp Pro Gly
 725 730 735
 Asn Asp Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys Arg Ser Val
 740 745 750
 Asp Gly Glu Gly Tyr Asn Val Ala Gln Cys Asn Met Thr Lys Asp Trp
 755 760 765
 Phe Leu Ile Gln Met Leu Ala Asn Tyr Asn Ile Gly Tyr Gln Gly Phe
 770 775 780
 Tyr Ile Pro Glu Ser Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn
 785 790 795 800
 Phe Gln Pro Met Ser Arg Gln Val Val Asp Glu Thr Lys Tyr Lys Asp
 805 810 815
 Tyr Gln Gln Val Gly Ile Ile His Gln His Asn Asn Ser Gly Phe Val
 820 825 830
 Gly Tyr Leu Ala Pro Thr Met Arg Glu Gly Gln Ala Tyr Pro Ala Asn
 835 840 845
 Phe Pro Tyr Pro Leu Ile Gly Lys Thr Ala Val Asp Ser Val Thr Gln
 850 855 860
 Lys Lys Phe Leu Cys Asp Arg Thr Leu Trp Arg Ile Pro Phe Ser Ser
 865 870 875 880
 Asn Phe Met Ser Met Gly Ala Leu Thr Asp Leu Gly Gln Asn Leu Leu
 885 890 895
 Tyr Ala Asn Ser Ala His Ala Leu Asp Met Thr Phe Glu Val Asp Pro
 900 905 910
 Met Asp Glu Pro Thr Leu Leu Tyr Val Leu Phe Glu Val Phe Asp Val
 915 920 925
 Val Arg Val His Gln Pro His Arg Gly Val Ile Glu Thr Val Tyr Leu
 930 935 940
 Arg Thr Pro Phe Ser Ala Gly Asn Ala Thr Thr
 945 950 955
 <210> 52
 <211> 582
 <212> PRT
 <213> Adenoviridae - Mastadenovirus
 <400> 52

Sequence Listing as filed.txt

Met Arg Arg Ala Ala Met Tyr His Glu Gly Pro Pro Pro Ser Tyr Glu
1 5 10 15

Ser Val Val Gly Ala Ala Ala Ala Ser Pro Phe Ala Ser Gln Leu Glu
20 25 30

Pro Pro Tyr Val Pro Pro Arg Tyr Leu Arg Pro Thr Gly Gly Arg Asn
35 40 45

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

Tyr Leu Val Asp Asn Lys Ser Ala Asp Val Ala Ser Leu Asn Tyr Gln
65 70 75 80

Asn Asp His Ser Asn Phe Leu Thr Thr Val Ile Gln Asn Asn Asp Tyr
85 90 95

Thr Pro Ser Glu Ala Ser Thr Gln Thr Ile Asn Leu Asp Asp Arg Ser
100 105 110

His Trp Gly Gly Asp Leu Lys Thr Ile Leu His Thr Asn Met Pro Asn
115 120 125

Val Asn Glu Phe Met Phe Thr Asn Lys Phe Lys Ala Arg Val Met Val
130 135 140

Ser Arg Ser His Thr Lys Asp Asp Arg Val Glu Leu Lys Tyr Glu Trp
145 150 155 160

Val Glu Phe Glu Leu Pro Glu Gly Asn Tyr Ser Glu Thr Met Thr Ile
165 170 175

Asp Leu Met Asn Asn Ala Ile Val Glu His Tyr Leu Lys Val Gly Arg
180 185 190

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

Asn Phe Arg Leu Gly Leu Asp Pro Val Thr Gly Leu Val Met Pro Gly
210 215 220

Val Tyr Thr Asn Glu Ala Phe His Pro Asp Ile Ile Leu Leu Pro Gly
225 230 235 240

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

Arg Lys Arg Gln Pro Phe Gln Glu Gly Phe Arg Ile Thr Tyr Glu Asp
260 265 270

Sequence Listing as filed.txt

Leu Glu Gly Gly Asn Ile Pro Ala Leu Leu Asp Val Glu Ala Tyr Gln
275 280 285

Asn Ser Leu Lys Glu Glu Glu Ala Gly Glu Gly Ser Gly Gly Gly Gly
290 295 300

Ala Gly Gln Glu Glu Gly Gly Ala Ser Ser Glu Ala Ser Ala Asp Ala
305 310 315 320

Ala Ala Ala Glu Ala Glu Glu Ala Ala Asp Pro Ala Met Val Val Glu
325 330 335

Glu Glu Lys Asp Met Asn Asp Glu Ala Val Arg Gly Asp Thr Phe Ala
340 345 350

Thr Arg Gly Glu Glu Lys Lys Ala Glu Ala Glu Ala Ala Glu Glu
355 360 365

Ala Ala Ala Ala Ala Ala Ala Val Glu Ala Ala Ala Glu Ala Glu Lys
370 375 380

Pro Pro Lys Glu Pro Val Ile Lys Pro Leu Thr Glu Asp Ser Lys Lys
385 390 395 400

Arg Ser Tyr Asn Val Leu Lys Asp Ser Thr Asn Thr Glu Tyr Arg Ser
405 410 415

Trp Tyr Leu Ala Tyr Asn Tyr Gly Asp Pro Ala Thr Gly Val Arg Ser
420 425 430

Trp Thr Leu Leu Cys Thr Pro Asp Val Thr Cys Gly Ser Glu Gln Val
435 440 445

Tyr Trp Ser Leu Pro Asp Met Met Gln Asp Pro Val Thr Phe Arg Ser
450 455 460

Thr Arg Gln Val Ser Asn Phe Pro Val Val Gly Ala Glu Leu Leu Pro
465 470 475 480

Val His Ser Lys Ser Phe Tyr Asn Asp Gln Ala Val Tyr Ser Gln Leu
485 490 495

Ile Arg Gln Phe Thr Ser Leu Thr His Val Phe Asn Arg Phe Pro Glu
500 505 510

Asn Gln Ile Leu Ala Arg Pro Pro Ala Pro Thr Ile Thr Thr Val Ser
515 520 525

Glu Asn Val Pro Ala Leu Thr Asp His Gly Thr Leu Pro Leu Arg Asn
530 535 540

Sequence Listing as filed.txt

Ser Ile Gly Gly Val Gln Arg Val Thr Val Thr Asp Ala Arg Arg Arg
545 550 555 560

Thr Cys Pro Tyr Val Tyr Lys Ala Leu Gly Ile Val Ser Pro Arg Val
565 570 575

Leu Ser Ser Arg Thr Phe
580

<210> 53
<211> 542
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 53

Met Lys Arg Ala Lys Thr Ser Asp Glu Thr Phe Asn Pro Val Tyr Pro
1 5 10 15

Tyr Asp Thr Glu Asn Gly Pro Pro Ser Val Pro Phe Leu Thr Pro Pro
20 25 30

Phe Val Ser Pro Asp Gly Phe Gln Glu Ser Pro Pro Gly Val Leu Ser
35 40 45

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

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

Gln Asp Val Thr Thr Val Thr Pro Pro Leu Lys Lys Thr Lys Thr Asn
85 90 95

Leu Ser Leu Gln Thr Ser Ala Pro Leu Thr Val Ser Ser Gly Ser Leu
100 105 110

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

Met Gln Ser Gln Ala Pro Leu Thr Val Gln Asp Ala Lys Leu Gly Leu
130 135 140

Ala Thr Gln Gly Pro Leu Thr Val Ser Glu Gly Lys Leu Thr Leu Gln
145 150 155 160

Thr Ser Ala Pro Leu Thr Ala Ala Asp Ser Ser Thr Leu Thr Val Gly
165 170 175

Thr Thr Pro Pro Ile Ser Val Ser Ser Gly Ser Leu Gly Leu Asp Met
180 185 190

Glu Asp Pro Met Tyr Thr His Asp Gly Lys Leu Gly Ile Arg Ile Gly

Sequence Listing as filed.txt

195

200

205

Gly Pro Leu Gln Val Val Asp Ser Leu His Thr Leu Thr Val Val Thr
210 215 220

Gly Asn Gly Ile Thr Val Ala Asn Asn Ala Leu Gln Thr Lys Val Ala
225 230 235 240

Gly Ala Leu Gly Tyr Asp Ser Ser Gly Asn Leu Glu Leu Arg Ala Ala
245 250 255

Gly Gly Met Arg Ile Asn Thr Gly Gly Gln Leu Ile Leu Asp Val Ala
260 265 270

Tyr Pro Phe Asp Ala Gln Asn Asn Leu Ser Leu Arg Leu Gly Gln Gly
275 280 285

Pro Leu Tyr Val Asn Thr Asn His Asn Leu Asp Leu Asn Cys Asn Arg
290 295 300

Gly Leu Thr Thr Thr Thr Ser Ser Asn Thr Thr Lys Leu Glu Thr Lys
305 310 315 320

Ile Asp Ser Gly Leu Asp Tyr Asn Ala Asn Gly Ala Ile Ile Ala Lys
325 330 335

Leu Gly Thr Gly Leu Thr Phe Asp Asn Thr Gly Ala Ile Thr Val Gly
340 345 350

Asn Thr Gly Asp Asp Lys Leu Thr Leu Trp Thr Thr Pro Asp Pro Ser
355 360 365

Pro Asn Cys Arg Ile His Ala Asp Lys Asp Cys Lys Phe Thr Leu Val
370 375 380

Leu Thr Lys Cys Gly Ser Gln Ile Leu Ala Ser Val Ala Ala Leu Ala
385 390 395 400

Val Ser Gly Asn Leu Ser Ser Met Thr Gly Thr Val Ser Ser Val Thr
405 410 415

Ile Phe Leu Arg Phe Asp Gln Asn Gly Val Leu Met Glu Asn Ser Ser
420 425 430

Leu Asp Lys Glu Tyr Trp Asn Phe Arg Asn Gly Asn Ser Thr Asn Ala
435 440 445

Thr Pro Tyr Thr Asn Ala Val Gly Phe Met Pro Asn Leu Ser Ala Tyr
450 455 460

Pro Lys Thr Gln Ser Gln Thr Ala Lys Asn Asn Ile Val Ser Glu Val

Sequence Listing as filed.txt

465 470 475 480

Tyr Leu His Gly Asp Lys Ser Lys Pro Met Ile Leu Thr Ile Thr Leu
485 490 495

Asn Gly Thr Asn Glu Ser Ser Glu Thr Ser Gln Val Ser His Tyr Ser
500 505 510

Met Ser Phe Thr Trp Ser Trp Asp Ser Gly Lys Tyr Ala Thr Glu Thr
515 520 525

Phe Ala Thr Asn Ser Phe Thr Phe Ser Tyr Ile Ala Glu Gln
530 535 540

<210> 54
<211> 964
<212> PRT
<213> Adenoviridae - Mastadenovirus

<400> 54

Met Ala Thr Pro Ser Met Met Pro Gln Trp Ser Tyr Met His Ile Ser
1 5 10 15

Gly Gln Asp Ala Ser Glu Tyr Leu Ser Pro Gly Leu Val Gln Phe Ala
20 25 30

Arg Ala Thr Asp Ser Tyr Phe Ser Leu Ser Asn Lys Phe Arg Asn Pro
35 40 45

Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
50 55 60

Thr Leu Arg Phe Ile Pro Val Asp Arg Glu Asp Thr Ala Tyr Ser Tyr
65 70 75 80

Lys Ala Arg Phe Thr Leu Ala Val Gly Asp Asn Arg Val Leu Asp Met
85 90 95

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

Phe Lys Pro Tyr Ser Gly Thr Ala Tyr Asn Ser Leu Ala Pro Lys Gly
115 120 125

Ala Pro Asn Ser Cys Glu Trp Glu Gln Glu Glu Thr Gln Thr Ala Glu
130 135 140

Glu Ala Gln Asp Glu Glu Glu Asp Glu Ala Glu Ala Glu Glu Met
145 150 155 160

Pro Gln Glu Glu Gln Ala Pro Val Lys Lys Thr His Val Tyr Ala Gln
165 170 175

Sequence Listing as filed.txt

Ala Pro Leu Ser Gly Glu Lys Ile Thr Lys Asp Gly Leu Gln Ile Gly
180 185 190

Thr Asp Ala Thr Ala Thr Glu Gln Lys Pro Ile Tyr Ala Asp Pro Thr
195 200 205

Phe Gln Pro Glu Pro Gln Ile Gly Glu Ser Gln Trp Asn Glu Ala Asp
210 215 220

Ala Ser Val Ala Gly Gly Arg Val Leu Lys Lys Thr Thr Pro Met Lys
225 230 235 240

Pro Cys Tyr Gly Ser Tyr Ala Arg Pro Thr Asn Ala Asn Gly Gly Gln
245 250 255

Gly Val Leu Val Glu Lys Asp Gly Gly Lys Met Glu Ser Gln Val Asp
260 265 270

Met Gln Phe Phe Ser Thr Ser Glu Asn Ala Arg Asn Glu Ala Asn Asn
275 280 285

Ile Gln Pro Lys Leu Val Leu Tyr Ser Glu Asp Val His Met Glu Thr
290 295 300

Pro Asp Thr His Ile Ser Tyr Lys Pro Ala Lys Ser Asp Asp Asn Ser
305 310 315 320

Lys Val Met Leu Gly Gln Gln Ser Met Pro Asn Arg Pro Asn Tyr Ile
325 330 335

Gly Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr Asn Ser Thr Gly
340 345 350

Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln Leu Asn Ala Val Val
355 360 365

Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln Leu Leu Leu Asp
370 375 380

Ser Met Gly Asp Arg Thr Arg Tyr Phe Ser Met Trp Asn Gln Ala Val
385 390 395 400

Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile Glu Asn His Gly Thr Glu
405 410 415

Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Gly Gly Ile Gly Val Thr
420 425 430

Asp Thr Tyr Gln Ala Ile Lys Thr Asn Gly Asn Gly Asn Gly Gly Gly
435 440 445

Sequence Listing as filed.txt

Asn Thr Thr Trp Thr Lys Asp Glu Thr Phe Ala Asp Arg Asn Glu Ile
 450 455 460
 Gly Val Gly Asn Asn Phe Ala Met Glu Ile Asn Leu Ser Ala Asn Leu
 465 470 475 480
 Trp Arg Asn Phe Leu Tyr Ser Asn Val Ala Leu Tyr Leu Pro Asp Lys
 485 490 495
 Leu Lys Tyr Asn Pro Ser Asn Val Glu Ile Ser Asp Asn Pro Asn Thr
 500 505 510
 Tyr Asp Tyr Met Asn Lys Arg Val Val Ala Pro Gly Leu Val Asp Cys
 515 520 525
 Tyr Ile Asn Leu Gly Ala Arg Trp Ser Leu Asp Tyr Met Asp Asn Val
 530 535 540
 Asn Pro Phe Asn His His Arg Asn Ala Gly Leu Arg Tyr Arg Ser Met
 545 550 555 560
 Leu Leu Gly Asn Gly Arg Tyr Val Pro Phe His Ile Gln Val Pro Gln
 565 570 575
 Lys Phe Phe Ala Ile Lys Asn Leu Leu Leu Leu Pro Gly Ser Tyr Thr
 580 585 590
 Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met Val Leu Gln Ser Ser
 595 600 605
 Leu Gly Asn Asp Leu Arg Val Asp Gly Ala Ser Ile Lys Phe Glu Ser
 610 615 620
 Ile Cys Leu Tyr Ala Thr Phe Phe Pro Met Ala His Asn Thr Ala Ser
 625 630 635 640
 Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn Asp Gln Ser Phe Asn
 645 650 655
 Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro Ile Pro Ala Asn Ala
 660 665 670
 Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn Trp Ala Ala Phe Arg
 675 680 685
 Gly Trp Ala Phe Thr Arg Leu Lys Thr Lys Glu Thr Pro Ser Leu Gly
 690 695 700
 Ser Gly Phe Asp Pro Tyr Tyr Thr Tyr Ser Gly Ser Ile Pro Tyr Leu
 705 710 715 720

Sequence Listing as filed.txt

Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Val Thr
725 730 735

Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Thr Pro
740 745 750

Asn Glu Phe Glu Ile Lys Arg Ser Val Asp Gly Glu Gly Tyr Asn Val
755 760 765

Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Ile Gln Met Leu Ala
770 775 780

Asn Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Ile Pro Glu Ser Tyr Lys
785 790 795 800

Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln
805 810 815

Val Val Asp Glu Thr Lys Tyr Lys Asp Tyr Gln Gln Val Gly Ile Ile
820 825 830

His Gln His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met
835 840 845

Arg Glu Gly Gln Ala Tyr Pro Ala Asn Phe Pro Tyr Pro Leu Ile Gly
850 855 860

Lys Thr Ala Val Asp Ser Val Thr Gln Lys Lys Phe Leu Cys Asp Arg
865 870 875 880

Thr Leu Trp Arg Ile Pro Phe Ser Ser Asn Phe Met Ser Met Gly Ala
885 890 895

Leu Thr Asp Leu Gly Gln Asn Leu Leu Tyr Ala Asn Ser Ala His Ala
900 905 910

Leu Asp Met Thr Phe Glu Val Asp Pro Met Asp Glu Pro Thr Leu Leu
915 920 925

Tyr Val Leu Phe Glu Val Phe Asp Val Val Arg Val His Gln Pro His
930 935 940

Arg Gly Val Ile Glu Thr Val Tyr Leu Arg Thr Pro Phe Ser Ala Gly
945 950 955 960

Asn Ala Thr Thr

<210> 55
<211> 584

Sequence Listing as filed.txt

<212> PRT

<213> Adenoviridae - Mastadenovirus

<400> 55

Met Arg Arg Ala Ala Met Tyr His Glu Gly Pro Pro Pro Ser Tyr Glu
1 5 10 15

Ser Val Val Gly Ala Ala Ala Ala Ser Pro Phe Ala Ser Gln Leu Glu
20 25 30

Pro Pro Tyr Val Pro Pro Arg Tyr Leu Arg Pro Thr Gly Gly Arg Asn
35 40 45

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

Tyr Leu Val Asp Asn Lys Ser Ala Asp Val Ala Ser Leu Asn Tyr Gln
65 70 75 80

Asn Asp His Ser Asn Phe Leu Thr Thr Val Ile Gln Asn Asn Asp Tyr
85 90 95

Thr Pro Ser Glu Ala Ser Thr Gln Thr Ile Asn Leu Asp Asp Arg Ser
100 105 110

His Trp Gly Gly Asp Leu Lys Thr Ile Leu His Thr Asn Met Pro Asn
115 120 125

Val Asn Glu Phe Met Phe Thr Asn Lys Phe Lys Ala Arg Val Met Val
130 135 140

Ser Arg Ser His Thr Lys Asp Asp Arg Val Glu Leu Lys Tyr Glu Trp
145 150 155 160

Val Glu Phe Glu Leu Pro Glu Gly Asn Tyr Ser Glu Thr Met Thr Ile
165 170 175

Asp Leu Met Asn Asn Ala Ile Val Glu His Tyr Leu Lys Val Gly Arg
180 185 190

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

Asn Phe Arg Leu Gly Leu Asp Pro Val Thr Gly Leu Val Met Pro Gly
210 215 220

Val Tyr Thr Asn Glu Ala Phe His Pro Asp Ile Ile Leu Leu Pro Gly
225 230 235 240

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

Sequence Listing as filed.txt

Arg Lys Arg Gln Pro Phe Gln Glu Gly Phe Arg Ile Thr Tyr Glu Asp
260 265 270

Leu Glu Gly Gly Asn Ile Pro Ala Leu Leu Asp Val Glu Ala Tyr Gln
275 280 285

Asp Ser Leu Lys Glu Glu Glu Ala Gly Glu Gly Ser Gly Gly Gly Gly
290 295 300

Gly Ala Gly Gln Glu Glu Gly Gly Ala Ser Ser Glu Ala Ser Ala Asp
305 310 315 320

Ala Ala Ala Ala Ala Glu Ala Glu Ala Ala Asp Pro Ala Met Val Val
325 330 335

Glu Glu Glu Lys Asp Met Asn Asp Glu Ala Val Arg Gly Asp Thr Phe
340 345 350

Ala Thr Arg Gly Glu Glu Lys Lys Ala Glu Ala Glu Ala Ala Ala Glu
355 360 365

Glu Ala Ala Ala Ala Ala Ala Ala Ala Ala Val Glu Ala Ala Ala Glu Ala
370 375 380

Glu Lys Pro Pro Lys Glu Pro Val Ile Lys Ala Leu Thr Glu Asp Ser
385 390 395 400

Lys Lys Arg Ser Tyr Asn Val Leu Lys Asp Ser Thr Asn Thr Ala Tyr
405 410 415

Arg Ser Trp Tyr Leu Ala Tyr Asn Tyr Gly Asp Pro Ala Thr Gly Val
420 425 430

Arg Ser Trp Thr Leu Leu Cys Thr Pro Asp Val Thr Cys Gly Ser Glu
435 440 445

Gln Val Tyr Trp Ser Leu Pro Asp Met Met Gln Asp Pro Val Thr Phe
450 455 460

Arg Ser Thr Arg Gln Val Ser Asn Phe Pro Val Val Gly Ala Glu Leu
465 470 475 480

Leu Pro Val His Ser Lys Ser Phe Tyr Asn Asp Gln Ala Val Tyr Ser
485 490 495

Gln Leu Ile Arg Gln Phe Thr Ser Leu Thr His Val Phe Asn Arg Phe
500 505 510

Pro Glu Asn Gln Ile Leu Ala Arg Pro Pro Ala Pro Thr Ile Thr Thr
515 520 525

Sequence Listing as filed.txt

Val Ser Glu Asn Val Pro Ala Leu Thr Asp His Gly Thr Leu Pro Leu
 530 535 540

Arg Asn Ser Ile Gly Gly Val Gln Arg Val Thr Val Thr Asp Ala Arg
 545 550 555 560

Arg Arg Thr Cys Pro Tyr Val Tyr Lys Ala Leu Gly Ile Val Ser Pro
 565 570 575

Arg Val Leu Ser Ser Arg Thr Phe
 580

<210> 56
 <211> 1734
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 56
 atgaagcgcg ccaaaacgtc tgacgagacc ttcaaccccg tgtacccta tgacacggaa 60
 aacggggcctc cctccgtccc tttcctcacc cctcccttcg tgtccccga cggatttcaa 120
 gaaagcccc caggggtcct gtctctgcgc ctgtcagagc ccctggtcac tttccacggc 180
 atgcttggcc tgaaaatggg aaatggcctc tccctggatg acgccggcaa cctcacctct 240
 caagatgtca ccaccgtcac ccctcccctc aaaaaaacca agaccaacct cagcctccag 300
 acctcagccc ccctgaccgt tagctctggg tccctcaccg tcgcggccgc cgctccactg 360
 gcggtggccg gcacctctct caccatgcaa tctcaggccc ccttgacagt gcaagatgca 420
 aaactcggcc tggccaccca gggacccctg accgtgtctg aaggcaaact caccttgacg 480
 acatcggctc cactgacggc cgctgacagc agcactctca ctgttagtgc cacacctccc 540
 ctgagcaca gcaatggtag ttgagcatt gacatgcagg ccccgattta taccaccaat 600
 ggaaaactgg cacttaacat tgggtgctcc ctgcatgtgg tagacacct aaatgcacta 660
 actgtagtaa ctggccaggg tcttaccata aatggaagag ccctgcaaac tagagtcacg 720
 ggtgccctca gttatgacac agaaggcaac atccaactgc aagccggagg gggatatgcg 780
 attgacaata atggccaact tacccttaat gtagcttacc catttgatgc tcaaaacaac 840
 ctgagcctta gacttggcca aggtccccta attgttaact ctgcccacaa cttggatctt 900
 aaccttaaca gaggccttta cttatttaca tctggaaaca cgaaaaaact ggaagttaac 960
 ataaaaacag ccaaaggctt attttacgat ggcaccgcta tagcaatcaa tgcaggtgac 1020
 gggctacagt ttgggtctgg ttcagatata aatccattgc aaactaaact tggattgggg 1080
 ctggaatatg actccaacaa agctataatc actaaacttg gaactggcct aagctttgac 1140
 aacacagggtg ccatcacagt aggcaacaaa aatgatgaca agcttacctt gtggaccaca 1200
 ccagacccct ccccaaactg cagaattaat tcagaaaaag atgctaaact cacactagtt 1260
 ttgactaaat gcggcagcca ggtgttagcc agcgtttctg ttttatctgt aaaaggcagc 1320
 cttgccccca tcagcggcac agtaactagc gccagattg ttttaagatt tgatgaaaac 1380

Sequence Listing as filed.txt

ggagttttat	tgagcaattc	ttctcttgac	ccccaatact	ggaactatag	aaaaggcgat	1440
tctacagaag	gcactgcata	tactaatgct	gtgggattta	tgcccaacct	cacagcatac	1500
cctaaaacac	agagccagac	tgctaaaagc	aacattgtaa	gtcaagttaa	cttgaatggg	1560
gacaaaacaa	aacccatgac	cctaaccatc	accctcaatg	gaactaatga	aacaggggat	1620
gctacagtaa	gcacatactc	catgtcattt	tcattggaact	ggaatggaag	taattacatt	1680
aatgacacct	tccaaaccaa	ctcctttacc	ttctcctaca	tcgccaaga	ataa	1734

<210> 57
 <211> 2868
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 57	
atggcgaccc	catcgatgat gccgcagtg tctgtacatgc acatctcggg ccaggacgcc 60
tcggagtacc	tgagccccgg gctggtgcag ttcgccccgc ccaccgacag ctacttcagc 120
ctgagtaaca	agtttaggaa cccacgggtg gcgcccacgc acgatgtgac caccgaccgg 180
tcccagcgcc	tgacgctgcg gttcatcccc gtggaccgcg aggacaccgc gtactcttac 240
aaggcgcggt	tcaccctggc cgtgggcgac aaccgcgtgc tggacatggc ctccacctac 300
tttgacatcc	gcggcggtgct ggacaggggc cccaccttta agccctactc cggcactgcc 360
tacaactccc	tggcccccaa gggcgcccc aaccctgtg agtgggatga agccgttact 420
gctgttgaca	ttaacctgga tgagctcggc gaagatgaag acgacgccga aggggaagca 480
gaacagcaaa	aaagtcatgt atttggtcaa gcgcctact caggacaaaa cattacgaag 540
gagggcatac	aaattggggg agataccacc agccaagccc aaacaccttt atacgctgac 600
aaaacattcc	aaccggaacc tcaggttgga gaatcccaat ggaatgagac agaaatcaat 660
tatggagcgg	gacgagtgtt aaaaaagacc accctcatga aaccatgcta tgggtcatat 720
gcaagaccta	ctaataaaaa cggcggtcag ggcatactgc tggagaaaga ggggtggtaaa 780
ccagaaagtc	aagttgaaat gcaatttttt tctactactc aggccgccgc ggctggtaat 840
tcagataatc	ttactccaaa agttgttttg tatagcgagg atgttcacct ggaaacgcca 900
gatacacaca	tttcatatat gccactagc aacgaagcca attcaagaga actgttggga 960
caacaagcta	tgcccaacag acccaactac attgccttca gagacaactt tattggcctt 1020
atgtattaca	acagcactgg caacatggga gtgctggcag gtcaggcctc acagttgaat 1080
gcagtgggtg	acttgcaaga cagaaacaca gaactgtcct accagctctt gcttgattcc 1140
atgggagaca	gaaccagata cttttccatg tggaatcagg cgggtggacag ttatgatcca 1200
gatgttagaa	ttattgaaaa tcatggaact gaagatgagc tgcccaacta ttgtttcccc 1260
ctgggcggca	taattaacac cgaaacttta actaaagtga aacctaagac tggacaagac 1320
gctcagtggt	aaaaagatac tgagttttca gagaaaaatg aaataagggg gggaaacaac 1380
ttcgccatgg	agattaacct caatgccaac ctgtggagga atttcctgta ctccaacgtg 1440

Sequence Listing as filed.txt

gccctgtacc tgccagacaa acttaagtac actccagcca acgtgcagat ttccagcaac	1500
tccaactcct acgactacat gaacaagcga gtggtggtccc cggggctggt ggactgctac	1560
atcaacctgg gcgcgcgctg gtccctggac tacatggaca acgtcaaccc cttcaaccac	1620
caccgcaatg cgggcctgcg ctaccgctcc atgcttctgg gcaacgggcg ctacgtgccc	1680
ttccacatcc aggtgcccc gaagttcttt gccatcaaga acctcctcct cctgccgggc	1740
tcctacacct acgagtggaa cttcaggaag gatgtcaaca tggtcctcca gagctctctg	1800
ggtaacgacc tcagggtcga cggggccagc atcaagttcg agagcatctg cctctacgcc	1860
accttcttcc ccatggcccc caacacggcc tccacgctcg aggccatgct caggaacgac	1920
accaacgacc agtccttcaa cgactacctc tccgccgcca acatgctcta ccccatcccc	1980
gccaacgcca ccaacgtccc catctccatc ccctcgcgca actgggcggc cttccgcggc	2040
tgggccttca ctgcctcaa gaccaaggag accccctccc tgggctcggg tttcgacccc	2100
tactacacct actcgggctc cataccctac ctggacggaa cttctacct caaccacacc	2160
ttcaagaagg tctcggtcac cttcgactcc tcggtcagct ggccgggcaa cgaccgcctg	2220
ctcaccccc aagagttcga gatcaagcgc tcggtcgacg gggagggcta caacgtggcc	2280
cagtgaaca tgaccaagga ctggttcctc atccagatgc tggccaacta caacatcggc	2340
tatcagggtt tctacatccc agagagctac aaggacagga tgtactcctt ctttaggaac	2400
ttccagcccc tgagccggca ggtggtggac gaaaccaagt acaaggacta ccagcaggtg	2460
ggcatcatcc accagcacia caactcgggc ttcgtgggct acctcgcccc caccatgcgc	2520
gagggacagg cctaccccg ccaacttcccc taccgctca ttggcaagac cgcggtcgac	2580
agcgtcacc agaaaaagt cctctgcgac cgcaccctct ggcgcacccc cttctccagc	2640
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gcccacgcgc tcgacatgac cttcgaggtc gaccccatgg acgagccac ctttctctat	2760
gttctgttcg aagtctttga cgtggtccgg gtccaccagc cgcaccgcgg cgtcatcgag	2820
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<210> 58
 <211> 1749
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 58	
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gcggcgcgcg cctctccctt tgcgtcgag ctggagccgc cgtacgtgcc tccgcggtac	120
ctgcggccta cggggggaag aaacagcatc cgttactcgg agctggcgcc cctgtacgac	180
accacccggg tgtacctggt ggacaacaag tcggcgagcg tggcctccct gaactaccag	240
aacgaccaca gcaatttttt gaccacggtc atccagaaca atgactacac cccgagcgag	300
gccagcacc agaccatcaa tctggatgac cggtcgcact ggggcggcga cctgaaaacc	360
atcctgcaca ccaacatgcc caacgtgaac gagttcatgt tcaccaataa gttcaaggcg	420

Sequence Listing as filed.txt

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aacgcgatcg tggagcacta tctgaaagtg ggcaggcaga acgggggtcct ggagagcgac	600
atcgggggtca agttcgacac caggaacttc cgcctggggc tggacccggt caccgggctg	660
gtcatgcccc gggctctacac caacgaggcc ttccaccccg acatcatcct gctgcccggc	720
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cccttccagg agggcttttag gatcacctac gaggacctgg aggggggcaa catccccgcg	840
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ggcggcggcg gcgccgtca ggaggagggc ggggcctcct ctgaggcctc tgcggacgca	960
gctgccgccc aggcggagga ggcggccgac cccgcgatgg tggtagagga agagaaggat	1020
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gccccacca tcaccaccgt cagtgaatac gttcctgctc tcacagatca cgggacgcta	1620
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acttttttaa	1749

<210> 59

<211> 1629

<212> DNA

<213> Adenoviridae - Mastadenovirus

<400> 59

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gaaagcccc caggggtcct gtctctgcgc ctgtcagagc ccctgggtcac ttccacggc	180
atgcttgccc tgaatatggg aaatggcctc tccctggatg acgccggcaa cctcacctct	240
caagatgtca ccaccgtcac ccctccccctc aaaaaacca agaccaacct cagcctccag	300
acctcagccc ccctgaccgt tagctctggg tccctcaccg tcgcggccgc cgctccactg	360
gcggtggccg gcacctctct caccatgcaa tctcaggccc ccttgacggg gcaagatgca	420

Sequence Listing as filed.txt

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atcagtgtga gcagtggaag tctaggctta gatatggaag accccatgta tactcacgat	600
ggaaaactgg gaatcagaat tgggtggcca ctgcaagtag tagacagctt gcacacactc	660
actgtagtta ctggaaacgg aataactgta gctaacaatg cccttcaaac taaagttgag	720
ggtgccctgg gttatgactc atctggcaat ctagaattgc gagccgcagg gggtagcgga	780
attaacacag ggggtcaact cattcttgat gtggcttatc catttgatgc tcagaacaat	840
ctcagcctta gactcggcca gggaccttta tatgtgaaca ccaatcacia cctagattta	900
aattgcaaca gaggtctgac cacaaccacc agcagtaaca caaccaaact tgaaactaaa	960
atcgattcgg gcttagacta taacgccaat ggggctatca ttgctaaact tggcactggg	1020
ttacaccttg acaacacagg tgccataact gtgggaaaca ctggggatga caaactcact	1080
ctgtggacta cccagatcc ctctcctaac tgcagaattc acgcagacaa agactgcaag	1140
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gtgtctggaa acctatcatc aatgacaggc actgtctcca gcgttaccat ctttctcaga	1260
ttcgatcaga atggagttct tatggaaaat tcctcgctag acaaggagta ctggaacttc	1320
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gaatccagtg aaactagtca ggtgagtcac tactccatgt catttacatg gtcctgggac	1560
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gaacaataa	1629

<210> 60
 <211> 2895
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 60	
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ctgagtaaca agtttaggaa cccacgggtg gcgcccacgc acgatgtgac caccgaccgg	180
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tacaactccc tggcccccaa gggcgcccc aactcctgag agtgggagca agaggagact	420
cagacagctg aagaggcaca agacgaagaa gaagatgaag ctgaagctga ggaggaaatg	480
cctcaggaag agcaagcacc tgtcaaaaag actcatgtat atgctcaggc tcccccttct	540
ggcgaaaaaa ttactaaaga cggtctgcag ataggaacgg acgctacagc taccgaacaa	600

Sequence Listing as filed.txt

aaacctat	ttt atgcagatcc	cacattccag	ccagaacccc	aaattggtga	atctcagtgg	660
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ccctgttatg	gttcctatgc	caggcccaca	aatgccaatg	gaggtcaggg	tgtattggtg	780
gagaaagacg	gtggaaagat	ggaaagccaa	gtagatatgc	aattcttttc	gacttctgaa	840
aacgcccgtg	acgaggctaa	caacattcag	cccaaattgg	tgctgtacag	cgaggatgtg	900
catatggaga	ccccagacac	acacatttct	tacaagcctg	caaaaagcga	tgataattcg	960
aaagtcatgc	tgggtcagca	gtccatgccc	aacaggccaa	attacatcgg	cttcagagac	1020
aactttatcg	ggctcatgta	ttacaacagc	actggcaaca	tgggggtgct	ggcagggtcag	1080
gcctcacagt	tgaatgcggg	ggtggacttg	caagacagaa	acacagaact	gtcctaccag	1140
ctcttgcttg	attccatggg	agacagaacc	agatactttt	ccatgtggaa	tcaggcggtg	1200
gacagttatg	atccagatgt	cagaattatt	gaaaatcatg	gaactgaaga	tgagctgccc	1260
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ccctccaacg	tggaaatctc	tgacaacccc	aacacctacg	actacatgaa	caagcgagtg	1560
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acgctcgagg	ccatgctcag	gaacgacacc	aacgaccagt	ccttcaacga	ctacctctcc	1980
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gtgggctacc	tcgccccccac	catgcgcgag	ggacaggcct	accccgccaa	cttcccctac	2580
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Sequence Listing as filed.txt

accctctggc gcatccccctt ctccagcaac ttcattgtcca tgggtgctgct cacggacctg	2700
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cccatggacg agccccacct tctctatgtt ctgttcgaag tctttgacgt ggtccgggtc	2820
caccagccgc accgcggcgt catcgagacc gtgtacctgc gcacgccctt ctcggccggc	2880
aacgccacca cctaa	2895

<210> 61
 <211> 1755
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 61	
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gcggcgggcg cctctccctt tgcgtcgag ctggagccgc cgtacgtgcc tccgcggtac	120
ctgcggccta cggggggaag aaacagcatc cgttactcgg agctggcgcc cctgtacgac	180
accacccggg tgtacctggt ggacaacaag tcggcgagc tggcctccct gaactaccag	240
aacgaccaca gcaatttttt gaccacggtc atccagaaca atgactacac cccgagcgag	300
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ccggacgtga cctgcggctc ggagcagggt tactggtcgc tgcccacat gatgcaagac	1380
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Sequence Listing as filed.txt

cagttcacct ctctgacca cgtgttcaat cgctttcctg agaaccagat tctggcgcgc	1560
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acgctaccgc tgcgcaacag catcggagga gtccagcgag tgaccgtaac tgacgccaga	1680
cgccgcacct gtccctacgt ttacaaggcc ctgggcatag tctcgccgcg cgtcctttcc	1740
agccgcactt ttttaa	1755

<210> 62
 <211> 37776
 <212> DNA
 <213> Adenoviridae - Mastadenovirus

<400> 62	
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cggggcgggg cggggaggag cggcggcgcg gggcgggccc ggagggtgtg cggaagtgtg	120
gtttgtaagt gtggcggatg tgacttgcta gcgccggatg tggtaaaagt gacgtttttg	180
gagtgcgaca acgcccacgg gaagtgcacat ttttcccgcg gtttttaccg gatgtcgtag	240
tgaatttggg cgttaccaag taagatttgg ccattttcgc gggaaaactg aaatggggaa	300
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aacgccctag gcaataaacc tgcttacctg gactgaatga gttgacgcct atgtttgctt	1560

Sequence Listing as filed.txt

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acctcatgga ggcctgggag tgtttagaga gctttgccga agtgcgtgcc ttgctggaag	1740
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tagtttgtag aatcaaggag gattacaagt ggggaatttga acagcttttg aaatcctgtg	1860
gtgagctctt ggattctttg aatctgggcc accaggctct tttccaggac aagatcatca	1920
ggactttgga tttttccaca ccggggcgca ttgctgccgg ggttgctttt ctagcttttt	1980
tgaaggataa atggagcgaa gagaccact tgagttcggg atacgtcctg gattttcttg	2040
ccatacaact gtggagagca tggatcaggc acaagaacag aatgcaactg ttgtcttccg	2100
tccgtccgtt gctgattcag ccggaggagc agcagaccgg gccggaggac cgggctcgtc	2160
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gaagaccgta catataacca gccacagccg caaggcctgg cccgtgttcg agcacaacgt	3180
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ttctagcgat gaagacacag actgaggtgg gtgagtgggc gtggtctggg ggtgggaagc	3540
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Sequence Listing as filed.txt

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gacgcgcatg cccactggg ccggggtgcg tcagaatgtg atgggctcca gcatcgacgg	3720
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gttggacgcc accgccgccc ccgccgccac cgccgccgcc tcggccgtgc gcagcctggc	3840
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cctttcgcag caggctgtgg ccctgcgcca gcaggctctc gccctgcagg ctacggggaa	4020
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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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acat acagaaaacc ctctatgtag	
gatctgatga tacactagag ggtacccaat cacaagctag	28680
ggtttcatgg tatttttata	
aaagctcaga taatcctatt actctttgca aaggtgatca	28740
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ctggatttta ttacagtaca aactttcata gtgggcaaga	28860
taaatattat actgttaagg	
tagaaaatcc taccactcct agaactacca ccaccaccac	28920
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agcccactaa acctaaaact accaagaaaa ccactgtgaa	28980
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caactacaga aaccaccacc agcacaacac ttgctgcaac	29040
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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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Sequence Listing as filed.txt

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