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<110> The Trustees of the University of Pennsylvania

<120> Simian Adenovirus Nucleic Acid and Amino Acid Sequences,
Vectors Containing Same, and Methods of Use

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<151> 2001-11-21

<150> US 60/366,798

<151> 2002-03-22

<160> 39

<170> PatentIn version 3.1

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Pro Glu Gly	Pro Pro Ser	Tyr Glu Ser	Val Met Gln	Gln Ala Val		
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Tyr Lys Tyr Thr Pro Ala Asn Ile Thr Leu Pro Thr Asn Thr Asn	
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Phe Pro Met Ala His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu	
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Glu Gly Tyr Lys Asp	Arg Met Tyr Ser Phe	Phe Arg Asn Phe Gln	
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Val Ile Glu Ala Val Tyr Leu Arg Thr Pro Phe Ser Ala Gly Asn	
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Lys Pro Leu Gly Val Leu Ser Leu Arg Leu Ala Asp Pro Val Thr
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Leu Asp Ser Ser Gly Lys	Leu Ile Ser Asn Thr	Ala Thr Lys Ala	
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Ser Thr Gly Ala Ile Val	Ala Trp Asn Lys Asp	Asp Asp Lys Leu	
1715	1720	1725	

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Thr Leu Trp Thr Thr Ala Asp Pro Ser Pro Asn Cys His Ile Tyr	
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tct gaa aag gat gct aag ctt aca ctt tgc ttg aca aag tgt ggc	32922
Ser Glu Lys Asp Ala Lys Leu Thr Leu Cys Leu Thr Lys Cys Gly	
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agt cag att ctg ggc act gtt tcc ctc ata gct gtt gat act ggc	32967
Ser Gln Ile Leu Gly Thr Val Ser Leu Ile Ala Val Asp Thr Gly	
1760 1765 1770	
agt tta aat ccc ata aca gga aca gta acc act gct ctt gtc tca	33012
Ser Leu Asn Pro Ile Thr Gly Thr Val Thr Thr Ala Leu Val Ser	
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ctt aaa ttc gat gca aat gga gtt ttg caa agc agc tca aca cta	33057
Leu Lys Phe Asp Ala Asn Gly Val Leu Gln Ser Ser Ser Thr Leu	
1790 1795 1800	
gac tca gac tat tgg aat ttc aga cag gga gat gtt aca cct gct	33102
Asp Ser Asp Tyr Trp Asn Phe Arg Gln Gly Asp Val Thr Pro Ala	
1805 1810 1815	
gaa gcc tat act aat gct ata ggt ttc atg ccc aat cta aaa gca	33147
Glu Ala Tyr Thr Asn Ala Ile Gly Phe Met Pro Asn Leu Lys Ala	
1820 1825 1830	
tac cct aaa aac aca agt gga gct gca aaa agt cac att gtt ggg	33192
Tyr Pro Lys Asn Thr Ser Gly Ala Ala Lys Ser His Ile Val Gly	
1835 1840 1845	
aaa gtg tac cta cat ggg gat aca ggc aaa cca ctg gac ctc att	33237
Lys Val Tyr Leu His Gly Asp Thr Gly Lys Pro Leu Asp Leu Ile	
1850 1855 1860	
att act ttc aat gaa aca agt gat gaa tct tgc act tac tgt att	33282
Ile Thr Phe Asn Glu Thr Ser Asp Glu Ser Cys Thr Tyr Cys Ile	
1865 1870 1875	
aac ttt caa tgg cag tgg ggg gct gat caa tat aaa aat gaa aca	33327
Asn Phe Gln Trp Gln Trp Gly Ala Asp Gln Tyr Lys Asn Glu Thr	
1880 1885 1890	
ctt gcc gtc agt tca ttc acc ttt tcc tat att gct aaa gaa taa	33372
Leu Ala Val Ser Ser Phe Thr Phe Ser Tyr Ile Ala Lys Glu	
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 <212> PRT
 <213> chimpanzee adenovirus serotype Pan5

<400> 2

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 Pro Thr Glu Ala Ser Thr Gln Thr Ile Asn Phe Asp Glu Arg Ser Arg
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 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
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 Leu Thr Tyr Glu Trp Val Glu Phe Glu Leu Pro Glu Gly Asn Phe Ser
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 Val Thr Met Thr Ile Asp Leu Met Asn Asn Ala Ile Ile Asp Asn Tyr
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 195 200 205
 Lys Phe Asp Thr Arg Asn Phe Arg Leu Gly Trp Asp Pro Val Thr Glu
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 Leu Val Met Pro Gly Val Tyr Thr Asn Glu Ala Phe His Pro Asp Ile
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 Val Leu Leu Pro Gly Cys Gly Val Asp Phe Thr Glu Ser Arg Leu Ser
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 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
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 Val Asp Ala Tyr Glu Lys Ser Lys Glu Asp Ser Ala Ala Ala Ala Thr
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 Ala Ala Val Ala Thr Ala Ser Thr Glu Val Arg Gly Asp Asn Phe Ala
 305 310 315 320
 Ser Ala Ala Thr Leu Ala Ala Ala Glu Ala Ala Glu Thr Glu Ser Lys
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 Ile Val Ile Gln Pro Val Glu Lys Asp Ser Lys Glu Arg Ser Tyr Asn
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 Tyr Asn Tyr Gly Asp Pro Glu Lys Gly Val Arg Ser Trp Thr Leu Leu
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 405 410 415
 Ser Asn Tyr Pro Val Val Gly Ala Glu Leu Leu Pro Val Tyr Ser Lys
 420 425 430
 Ser Phe Phe Asn Glu Gln Ala Val Tyr Ser Gln Gln Leu Arg Ala Phe
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 Thr Ser Leu Thr His Val Phe Asn Arg Phe Pro Glu Asn Gln Ile Leu
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 Ala Leu Thr Asp His Gly Thr Leu Pro Leu Arg Ser Ser Ile Arg Gly
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 Thr Phe
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 <213> chimpanzee adenovirus serotype Pan5
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 Thr Val Ala Pro Thr His Asp Val Thr Thr Asp Arg Ser Gln Arg Leu
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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 Cys Gln Trp Thr Tyr Lys Ala Asp Gly Asp Thr Gly
 130 135 140
 Thr Glu Lys Thr Tyr Thr Tyr Gly Asn Ala Pro Val Gln Gly Ile Ser
 145 150 155 160
 Ile Thr Lys Asp Gly Ile Gln Leu Gly Thr Asp Thr Asp Asp Gln Pro
 165 170 175
 Ile Tyr Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln Val Gly Asp Ala
 180 185 190
 Glu Trp His Asp Ile Thr Gly Thr Asp Glu Lys Tyr Gly Gly Arg Ala
 195 200 205
 Leu Lys Pro Asp Thr Lys Met Lys Pro Cys Tyr Gly Ser Phe Ala Lys
 210 215 220
 Pro Thr Asn Lys Glu Gly Gly Gln Ala Asn Val Lys Thr Glu Thr Gly
 225 230 235 240
 Gly Thr Lys Glu Tyr Asp Ile Asp Met Ala Phe Phe Asp Asn Arg Ser
 245 250 255
 Ala Ala Ala Ala Gly Leu Ala Pro Glu Ile Val Leu Tyr Thr Glu Asn
 260 265 270
 Val Asp Leu Glu Thr Pro Asp Thr His Ile Val Tyr Lys Ala Gly Thr
 275 280 285
 Asp Asp Ser Ser Ser Ser Ile Asn Leu Gly Gln Gln Ser Met Pro Asn
 290 295 300
 Arg Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr
 305 310 315 320
 Tyr Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln
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 340 345 350
 Gln Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg Tyr Phe Ser Met
 355 360 365

Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile Glu
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 Asn His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Asp
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 Asp Gln Thr Thr Trp Thr Lys Asp Asp Thr Val Asn Asp Ala Asn Glu
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 Leu Gly Lys Gly Asn Pro Phe Ala Met Glu Ile Asn Ile Gln Ala Asn
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 Leu Trp Arg Asn Phe Leu Tyr Ala Asn Val Ala Leu Tyr Leu Pro Asp
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 465 470 475 480
 Thr Tyr Asp Tyr Met Asn Gly Arg Val Val Ala Pro Ser Leu Val Asp
 485 490 495
 Ala Tyr Ile Asn Ile Gly Ala Arg Trp Ser Leu Asp Pro Met Asp Asn
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 Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu Arg Tyr Arg Ser
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 Gln Lys Phe Phe Ala Ile Lys Ser Leu Leu Leu Leu Pro Gly Ser Tyr
 545 550 555 560
 Thr Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met Ile Leu Gln Ser
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 Ser Leu Gly Asn Asp Leu Arg Thr Asp Gly Ala Ser Ile Ala Phe Thr
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 Ser Ile Asn Leu Tyr Ala Thr Phe Phe Pro Met Ala His Asn Thr Ala
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 Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn Asp Gln Ser Phe
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 Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro Ile Pro Ala Asn
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 Ala Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn Trp Ala Ala Phe
 645 650 655
 Arg Gly Trp Ser Phe Thr Arg Leu Lys Thr Arg Glu Thr Pro Ser Leu
 660 665 670

Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly Ser Ile Pro Tyr
 675 680 685
 Leu Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile
 690 695 700
 Thr Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Thr
 705 710 715 720
 Pro Asn Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn
 725 730 735
 Val Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu
 740 745 750
 Ala His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val Pro Glu Gly Tyr
 755 760 765
 Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg
 770 775 780
 Gln Val Val Asp Glu Val Asn Tyr Lys Asp Tyr Gln Ala Val Thr Leu
 785 790 795 800
 Ala Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr
 805 810 815
 Met Arg Gln Gly Gln Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile
 820 825 830
 Gly Lys Ser Ala Val Ala Ser Val Thr Gln Lys Lys Phe Leu Cys Asp
 835 840 845
 Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe Met Ser Met Gly
 850 855 860
 Ala Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala Asn Ser Ala His
 865 870 875 880
 Ala Leu Asp Met Asn Phe Glu Val Asp Pro Met Asp Glu Ser Thr Leu
 885 890 895
 Leu Tyr Val Val Phe Glu Val Phe Asp Val Val Arg Val His Gln Pro
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 Gly Asn Ala Thr Thr
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 <213> chimpanzee adenovirus serotype Pan5

<400> 4

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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	Asp	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	Thr	Pro	Phe	Tyr	Asn	Asn	Asn	Gly	Lys	Leu	100	105	110	
Gly	Met	Lys	Val	Thr	Ala	Pro	Leu	Lys	Ile	Leu	Asp	Thr	Asp	Leu	Leu	115	120	125	
Lys	Thr	Leu	Val	Val	Ala	Tyr	Gly	Gln	Gly	Leu	Gly	Thr	Asn	Thr	Thr	130	135	140	
Gly	Ala	Leu	Val	Ala	Gln	Leu	Ala	Ser	Pro	Leu	Ala	Phe	Asp	Ser	Asn	145	150	155	160
Ser	Lys	Ile	Ala	Leu	Asn	Leu	Gly	Asn	Gly	Pro	Leu	Lys	Val	Asp	Ala	165	170	175	
Asn	Arg	Leu	Asn	Ile	Asn	Cys	Asn	Arg	Gly	Leu	Tyr	Val	Thr	Thr	Thr	180	185	190	
Lys	Asp	Ala	Leu	Glu	Ala	Asn	Ile	Ser	Trp	Ala	Asn	Ala	Met	Thr	Phe	195	200	205	
Ile	Gly	Asn	Ala	Met	Gly	Val	Asn	Ile	Asp	Thr	Gln	Lys	Gly	Leu	Gln	210	215	220	
Phe	Gly	Thr	Thr	Ser	Thr	Val	Ala	Asp	Val	Lys	Asn	Ala	Tyr	Pro	Ile	225	230	235	240
Gln	Ile	Lys	Leu	Gly	Ala	Gly	Leu	Thr	Phe	Asp	Ser	Thr	Gly	Ala	Ile	245	250	255	
Val	Ala	Trp	Asn	Lys	Asp	Asp	Asp	Lys	Leu	Thr	Leu	Trp	Thr	Thr	Ala	260	265	270	
Asp	Pro	Ser	Pro	Asn	Cys	His	Ile	Tyr	Ser	Glu	Lys	Asp	Ala	Lys	Leu	275	280	285	

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 Leu Ile Ala Val Asp Thr Gly Ser Leu Asn Pro Ile Thr Gly Thr Val
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 <222> (32162)..(33493)
 <223> L5 Fiber

<400> 5

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Phe Gln Glu Gly Phe Gln Ile Leu Tyr Glu Asp Leu Glu Gly Gly Asn	
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Ile Pro Ala Leu Leu Asp Val Glu Ala Tyr Glu Lys Ser Lys Glu Asp	
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Ser Thr Ala Ala Ala Thr Ala Ala Val Ala Thr Ala Ser Thr Glu Val	
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Arg Gly Asp Asn Phe Ala Ser Ala Ala Ala Ala Ala Glu Ala Ala Glu	
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Thr Glu Ser Lys Ile Val Ile Gln Pro Val Glu Lys Asp Ser Lys Asp	
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Arg Ser Tyr Asn Val Leu Ala Asp Lys Lys Asn Thr Ala Tyr Arg Ser	
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Trp Tyr Leu Ala Tyr Asn Tyr Gly Asp Pro Glu Lys Gly Val Arg Ser	
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Tyr Trp Ser Leu Pro Asp Met Met Gln Asp Pro Val Thr Phe Arg Ser	
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Thr Arg Gln Val Ser Asn Tyr Pro Val Val Gly Ala Glu Leu Leu Pro	
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Val Tyr Ser Lys Ser Phe Phe Asn Glu Gln Ala Val Tyr Ser Gln Gln	
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Asn Thr Tyr Asp Tyr Met Asn Gly Arg Val Thr Pro Pro Ser Leu	
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Val Asp Ala Tyr Leu Asn Ile Gly Ala Arg Trp Ser Leu Asp Pro	
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Leu Arg Asn Asp Thr Asn Asp Gln Ser Phe Asn Asp Tyr Leu Ser	
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Gly Phe Asp	Pro Tyr Phe Val Tyr	Ser Gly Ser Ile Pro	Tyr Leu	
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Asp Gly Thr	Phe Tyr Leu Asn His	Thr Phe Lys Lys Val	Ser Ile	
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Thr Phe Asp	Ser Ser Val Ser Trp	Pro Gly Asn Asp Arg	Leu Leu	
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Gln Met Leu	Ala His Tyr Asn Ile	Gly Tyr Gln Gly Phe	Tyr Val	
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Pro Glu Gly	Tyr Lys Asp Arg Met	Tyr Ser Phe Phe Arg	Asn Phe	
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Ala Asn Tyr	Pro Tyr Pro Leu Ile	Gly Lys Ser Ala Val	Ala Ser	
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Val Thr Gln	Lys Lys Phe Leu Cys	Asp Arg Val Met Trp	Arg Ile	
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 <211> 529
 <212> PRT
 <213> chimpanzee adenovirus serotype Pan6

<400> 6

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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	Met	Tyr	Ser	Asn	Lys	Phe	Lys	Ala	Arg	Val	Met	Val	Ser	130	135	140	
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Glu	Leu	Thr	Tyr	Glu	Trp	Val	Glu	Phe	Glu	Leu	Pro	Glu	Gly	Asn	Phe	165	170	175	
Ser	Val	Thr	Met	Thr	Ile	Asp	Leu	Met	Asn	Asn	Ala	Ile	Ile	Asp	Asn	180	185	190	
Tyr	Leu	Ala	Val	Gly	Arg	Gln	Asn	Gly	Val	Leu	Glu	Ser	Asp	Ile	Gly	195	200	205	
Val	Lys	Phe	Asp	Thr	Arg	Asn	Phe	Arg	Leu	Gly	Trp	Asp	Pro	Val	Thr	210	215	220	
Glu	Leu	Val	Met	Pro	Gly	Val	Tyr	Thr	Asn	Glu	Ala	Phe	His	Pro	Asp	225	230	235	240
Ile	Val	Leu	Leu	Pro	Gly	Cys	Gly	Val	Asp	Phe	Thr	Glu	Ser	Arg	Leu	245	250	255	
Ser	Asn	Leu	Leu	Gly	Ile	Arg	Lys	Arg	Gln	Pro	Phe	Gln	Glu	Gly	Phe	260	265	270	
Gln	Ile	Leu	Tyr	Glu	Asp	Leu	Glu	Gly	Gly	Asn	Ile	Pro	Ala	Leu	Leu	275	280	285	

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 305 310 315 320
 Ala Ser Ala Ala Ala Ala Ala Glu Ala Ala Glu Thr Glu Ser Lys Ile
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 Val Ile Gln Pro Val Glu Lys Asp Ser Lys Asp Arg Ser Tyr Asn Val
 340 345 350
 Leu Ala Asp Lys Lys Asn Thr Ala Tyr Arg Ser Trp Tyr Leu Ala Tyr
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 Asn Tyr Gly Asp Pro Glu Lys Gly Val Arg Ser Trp Thr Leu Leu Thr
 370 375 380
 Thr Ser Asp Val Thr Cys Gly Val Glu Gln Val Tyr Trp Ser Leu Pro
 385 390 395 400
 Asp Met Met Gln Asp Pro Val Thr Phe Arg Ser Thr Arg Gln Val Ser
 405 410 415
 Asn Tyr Pro Val Val Gly Ala Glu Leu Leu Pro Val Tyr Ser Lys Ser
 420 425 430
 Phe Phe Asn Glu Gln Ala Val Tyr Ser Gln Gln Leu Arg Ala Phe Thr
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 Ser Leu Thr His Val Phe Asn Arg Phe Pro Glu Asn Gln Ile Leu Val
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 Arg Pro Pro Ala Pro Thr Ile Thr Thr Val Ser Glu Asn Val Pro Ala
 465 470 475 480
 Leu Thr Asp His Gly Thr Leu Pro Leu Arg Ser Ser Ile Arg Gly Val
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 Tyr Lys Ala Leu Gly Val Val Ala Pro Arg Val Leu Ser Ser Arg Thr
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Phe

<210> 7
 <211> 942
 <212> PRT
 <213> chimpanzee adenovirus serotype Pan6
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 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 Ser Ser Gln Trp Glu Gln Ala Lys Thr Gly Asn Gly Gly
 130 135 140
 Thr Met Glu Thr His Thr Tyr Gly Val Ala Pro Met Gly Gly Glu Asn
 145 150 155 160
 Ile Thr Lys Asp Gly Leu Gln Ile Gly Thr Asp Val Thr Ala Asn Gln
 165 170 175
 Asn Lys Pro Ile Tyr Ala Asp Lys Thr Phe Gln Pro Glu Pro Gln Val
 180 185 190
 Gly Glu Glu Asn Trp Gln Glu Thr Glu Asn Phe Tyr Gly Gly Arg Ala
 195 200 205
 Leu Lys Lys Asp Thr Asn Met Lys Pro Cys Tyr Gly Ser Tyr Ala Arg
 210 215 220
 Pro Thr Asn Glu Lys Gly Gly Gln Ala Lys Leu Lys Val Gly Asp Asp
 225 230 235 240
 Gly Val Pro Thr Lys Glu Phe Asp Ile Asp Leu Ala Phe Phe Asp Thr
 245 250 255
 Pro Gly Gly Thr Val Asn Gly Gln Asp Glu Tyr Lys Ala Asp Ile Val
 260 265 270
 Met Tyr Thr Glu Asn Thr Tyr Leu Glu Thr Pro Asp Thr His Val Val
 275 280 285
 Tyr Lys Pro Gly Lys Asp Asp Ala Ser Ser Glu Ile Asn Leu Val Gln
 290 295 300
 Gln Ser Met Pro Asn Arg Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe
 305 310 315 320

Ile Gly Leu Met Tyr Tyr Asn Ser Thr Gly Asn Met Gly Val Leu Ala
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 Gly Gln Ala Ser Gln Leu Asn Ala Val Val Asp Leu Gln Asp Arg Asn
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 Thr Glu Leu Ser Tyr Gln Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr
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 Arg Tyr Phe Ser Met Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp
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 385 390 395 400
 Cys Phe Pro Leu Asp Gly Ser Gly Thr Asn Ala Ala Tyr Gln Gly Val
 405 410 415
 Lys Val Lys Asp Gly Gln Asp Gly Asp Val Glu Ser Glu Trp Glu Asn
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 Asp Asp Thr Val Ala Ala Arg Asn Gln Leu Cys Lys Gly Asn Ile Phe
 435 440 445
 Ala Met Glu Ile Asn Leu Gln Ala Asn Leu Trp Arg Ser Phe Leu Tyr
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 Ser Asn Val Ala Leu Tyr Leu Pro Asp Ser Tyr Lys Tyr Thr Pro Thr
 465 470 475 480
 Asn Val Thr Leu Pro Thr Asn Thr Asn Thr Tyr Asp Tyr Met Asn Gly
 485 490 495
 Arg Val Thr Pro Pro Ser Leu Val Asp Ala Tyr Leu Asn Ile Gly Ala
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 Arg Trp Ser Leu Asp Pro Met Asp Asn Val Asn Pro Phe Asn His His
 515 520 525
 Arg Asn Ala Gly Leu Arg Tyr Arg Ser Met Leu Leu Gly Asn Gly Arg
 530 535 540
 Tyr Val Pro Phe His Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys
 545 550 555 560
 Ser Leu Leu Leu Leu Pro Gly Ser Tyr Thr Tyr Glu Trp Asn Phe Arg
 565 570 575
 Lys Asp Val Asn Met Ile Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg
 580 585 590
 Thr Asp Gly Ala Ser Ile Ala Phe Thr Ser Ile Asn Leu Tyr Ala Thr
 595 600 605
 Phe Phe Pro Met Ala His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu
 610 615 620

Arg Asn Asp Thr Asn Asp Gln Ser Phe Asn Asp Tyr Leu Ser Ala Ala
 625 630 635 640
 Asn Met Leu Tyr Pro Ile Pro Ala Asn Ala Thr Asn Val Pro Ile Ser
 645 650 655
 Ile Pro Ser Arg Asn Trp Ala Ala Phe Arg Gly Trp Ser Phe Thr Arg
 660 665 670
 Leu Lys Thr Arg Glu Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr
 675 680 685
 Phe Val Tyr Ser Gly Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu
 690 695 700
 Asn His Thr Phe Lys Lys Val Ser Ile Thr Phe Asp Ser Ser Val Ser
 705 710 715 720
 Trp Pro Gly Asn Asp Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys
 725 730 735
 Arg Thr Val Asp Gly Glu Gly Tyr Asn Val Ala Gln Cys Asn Met Thr
 740 745 750
 Lys Asp Trp Phe Leu Val Gln Met Leu Ala His Tyr Asn Ile Gly Tyr
 755 760 765
 Gln Gly Phe Tyr Val Pro Glu Gly Tyr Lys Asp Arg Met Tyr Ser Phe
 770 775 780
 Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Val Val Asp Glu Val Asn
 785 790 795 800
 Tyr Lys Asp Tyr Gln Ala Val Thr Leu Ala Tyr Gln His Asn Asn Ser
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 Gly Phe Val Gly Tyr Leu Ala Pro Thr Met Arg Gln Gly Gln Pro Tyr
 820 825 830
 Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly Lys Ser Ala Val Ala Ser
 835 840 845
 Val Thr Gln Lys Lys Phe Leu Cys Asp Arg Val Met Trp Arg Ile Pro
 850 855 860
 Phe Ser Ser Asn Phe Met Ser Met Gly Ala Leu Thr Asp Leu Gly Gln
 865 870 875 880
 Asn Met Leu Tyr Ala Asn Ser Ala His Ala Leu Asp Met Asn Phe Glu
 885 890 895
 Val Asp Pro Met Asp Glu Ser Thr Leu Leu Tyr Val Val Phe Glu Val
 900 905 910
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 915 920 925

Val Tyr Leu Arg Thr Pro Phe Ser Ala Gly Asn Ala Thr Thr
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 <211> 443
 <212> PRT
 <213> chimpanzee adenovirus serotype Pan6
 <400> 8

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 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 Ile Ser Asn Asn Thr
 85 90 95
 Ile Ser Leu Lys Thr 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
 Thr 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 Val Phe Asp Gly Asn
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 Ala Ile Ala Thr Tyr Ile Gly Asn Gly Leu Asp Tyr Gly Ser Tyr Asp
 195 200 205
 Ser Asp Gly Lys Thr Arg Pro Val Ile Thr Lys Ile Gly Ala Gly Leu
 210 215 220
 Asn Phe Asp Ala Asn Lys Ala Ile 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 Gln Asp Asp
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 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 Gly Ser
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 Ala Leu Asn Pro Ile Asn Asp Thr Val Lys Ser Ala Ile Val Phe Leu
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 Arg Phe Asp Ser Asp Gly Val Leu Met Ser Asn Ser Ser Met Val Gly
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<400> 9

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

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 Asp Glu Asn 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

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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 Ala 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
 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> 11
 <211> 932
 <212> PRT
 <213> chimpanzee adenovirus serotype Pan7

<400> 11

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 Cys Gln Trp Thr Tyr Lys Ala Gly Asp Thr Asp Thr
130 135 140

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

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

Tyr Ala Asp Glu Thr Tyr Gln Pro Glu Pro Gln Val Gly Asp Ala Glu
180 185 190

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

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

Thr Asn Lys Glu Gly Gly Gln Ala Asn Val Lys Thr Glu Thr Gly Gly
225 230 235 240

Thr Lys Glu Tyr Asp Ile Asp Met Ala Phe Phe Asp Asn Arg Ser Ala
245 250 255

Ala Ala Ala Gly Leu Ala Pro Glu Ile Val Leu Tyr Thr Glu Asn Val
260 265 270

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

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

Ile Asn Leu Tyr Ala Thr Phe Phe Pro Met Ala His Asn Thr Ala Ser
 595 600 605
 Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn Asp Gln Ser Phe Asn
 610 615 620
 Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro Ile Pro Ala Asn Ala
 625 630 635 640
 Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn Trp Ala Ala Phe Arg
 645 650 655
 Gly Trp Ser Phe Thr Arg Leu Lys Thr Arg Glu Thr Pro Ser Leu Gly
 660 665 670
 Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly Ser Ile Pro Tyr Leu
 675 680 685
 Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Thr
 690 695 700
 Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Thr Pro
 705 710 715 720
 Asn Glu Phe Glu Ile Lys Arg Thr Val Asp Gly Glu Gly Tyr Asn Val
 725 730 735
 Ala Gln Cys Asn Met Thr Lys Asp Trp Phe Leu Val Gln Met Leu Ala
 740 745 750
 His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val Pro Glu Gly Tyr Lys
 755 760 765
 Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln
 770 775 780
 Val Val Asp Glu Val Asn Tyr Lys Asp Tyr Gln Ala Val Thr Leu Ala
 785 790 795 800
 Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr Leu Ala Pro Thr Met
 805 810 815
 Arg Gln Gly Gln Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly
 820 825 830
 Lys Ser Ala Val Ala Ser Val Thr Gln Lys Lys Phe Leu Cys Asp Arg
 835 840 845
 Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe Met Ser Met Gly Ala
 850 855 860
 Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala Asn Ser Ala His Ala
 865 870 875 880
 Leu Asp Met Asn Phe Glu Val Asp Pro Met Asp Glu Ser Thr Leu Leu
 885 890 895

Tyr Val Val Phe Glu Val Phe Asp Val Val Arg Val His Gln Pro His
 900 905 910
 Arg Gly Val Ile Glu Ala Val Tyr Leu Arg Thr Pro Phe Ser Ala Gly
 915 920 925
 Asn Ala Thr Thr
 930
 <210> 12
 <211> 443
 <212> PRT
 <213> chimpanzee adenovirus serotype Pan7
 <400> 12
 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 Thr Pro Leu Tyr Thr Lys Asp Gly Lys Leu
 100 105 110
 Ser Leu Gln Val Ser Pro Pro Leu Asn Ile Leu Lys Ser Thr Ile Leu
 115 120 125
 Asn Thr Leu Ala Val Ala Tyr Gly Ser Gly Leu Gly Leu Ser Gly Gly
 130 135 140
 Thr Ala Leu Ala Val Gln Leu Ala Ser Pro Leu Thr Phe Asp Glu Lys
 145 150 155 160
 Gly Asn Ile Lys Ile Asn Leu Ala Ser Gly Pro Leu Thr Val Asp Ala
 165 170 175
 Ser Arg Leu Ser Ile Asn Cys Lys Arg Gly Val Thr Val Thr Thr Ser
 180 185 190
 Gly Asp Ala Ile Glu Ser Asn Ile Ser Trp Pro Lys Gly Ile Arg Phe
 195 200 205

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

<210> 13
 <211> 338
 <212> PRT
 <213> simian serotype C1
 <400> 13

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

Thr Thr Thr Asp Asn Asn Thr Glu Asn Gly Asp Glu Glu Asp Glu Val
 20 25 30
 Ala Glu Glu Gly Glu Glu Glu Lys Gln Ala Thr Tyr Thr Phe Gly Asn
 35 40 45
 Ala Pro Val Lys Ala Glu Ala Glu Ile Thr Lys Glu Gly Leu Pro Ile
 50 55 60
 Gly Leu Glu Val Pro Ser Glu Gly Asp Pro Lys Pro Ile Tyr Ala Asp
 65 70 75 80
 Lys Leu Tyr Gln Pro Glu Pro Gln Val Gly Glu Glu Ser Trp Thr Asp
 85 90 95
 Thr Asp Gly Thr Asp Glu Lys Tyr Gly Gly Arg Ala Leu Lys Pro Glu
 100 105 110
 Thr Lys Met Lys Pro Cys Tyr Gly Ser Phe Ala Lys Pro Thr Asn Val
 115 120 125
 Lys Gly Gly Gln Ala Lys Val Lys Lys Val Glu Glu Gly Lys Val Glu
 130 135 140
 Tyr Asp Ile Asp Met Asn Phe Phe Asp Leu Arg Ser Gln Lys Thr Gly
 145 150 155 160
 Leu Lys Pro Lys Ile Val Met Tyr Ala Glu Asn Val Asp Leu Glu Thr
 165 170 175
 Pro Asp Thr His Val Val Tyr Lys Pro Gly Ala Ser Asp Ala Ser Ser
 180 185 190
 His Ala Asn Leu Gly Gln Gln Ser Met Pro Asn Arg Pro Asn Tyr Ile
 195 200 205
 Gly Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr Asn Ser Thr Gly
 210 215 220
 Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln Leu Asn Ala Val Val
 225 230 235 240
 Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln Leu Leu Leu Asp
 245 250 255
 Ser Leu Gly Asp Arg Thr Arg Tyr Phe Ser Met Trp Asn Gln Ala Val
 260 265 270
 Asp Ser Tyr Asp Pro Asp Val Arg Val Ile Glu Asn His Gly Val Glu
 275 280 285
 Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Asp Gly Val Gly Pro Arg
 290 295 300
 Thr Asp Ser Tyr Lys Gly Ile Glu Thr Asn Gly Asp Glu Asn Thr Thr
 305 310 315 320

Trp Lys Asp Leu Asp Pro Asn Gly Ile Ser Glu Leu Ala Lys Gly Asn
 325 330 335

Pro Phe

<210> 14
 <211> 315
 <212> PRT
 <213> chimpanzee adenovirus Pan-9

<400> 14

Ala Pro Lys Gly Ala Pro Asn Thr Cys Gln Trp Thr Tyr Lys Ala Asp
 1 5 10 15
 Gly Glu Thr Ala Thr Glu Lys Thr Tyr Thr Tyr Gly Asn Ala Pro Val
 20 25 30
 Gln Gly Ile Asn Ile Thr Lys Asp Gly Ile Gln Leu Gly Thr Asp Thr
 35 40 45
 Asp Asp Gln Pro Ile Tyr Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln
 50 55 60
 Val Gly Asp Ala Glu Trp His Asp Ile Thr Gly Thr Asp Glu Lys Tyr
 65 70 75 80
 Gly Gly Arg Ala Leu Lys Pro Asp Thr Lys Met Lys Pro Cys Tyr Gly
 85 90 95
 Ser Phe Ala Lys Pro Thr Asn Lys Glu Gly Gly Gln Ala Asn Val Lys
 100 105 110
 Thr Gly Thr Gly Thr Thr Lys Glu Tyr Asp Ile Asp Met Ala Phe Phe
 115 120 125
 Asp Asn Arg Ser Ala Ala Ala Ala Gly Leu Ala Pro Glu Ile Val Leu
 130 135 140
 Tyr Thr Glu Asn Val Asp Leu Glu Thr Pro Asp Thr His Ile Val Tyr
 145 150 155 160
 Lys Ala Gly Thr Asp Asp Ser Ser Ser Ser Ile Asn Leu Gly Gln Gln
 165 170 175
 Ala Met Pro Asn Arg Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile
 180 185 190
 Gly Leu Met Tyr Tyr Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly
 195 200 205
 Gln Ala Ser Gln Leu Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr
 210 215 220

Glu Leu Ser Tyr Gln Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg
 225 230 235 240
 Tyr Phe Ser Met Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val
 245 250 255
 Arg Ile Ile Glu Asn His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys
 260 265 270
 Phe Pro Leu Asp Ala Val Gly Arg Thr Asp Thr Tyr Gln Gly Ile Lys
 275 280 285
 Ala Asn Gly Thr Asp Gln Thr Thr Trp Thr Lys Asp Asp Ser Val Asn
 290 295 300
 Asp Ala Asn Glu Ile Gly Lys Gly Asn Pro Phe
 305 310 315

<210> 15
 <211> 315
 <212> PRT
 <213> chimpanzee adenovirus Pan-5

<400> 15

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

Lys Ala Gly Thr Asp Asp Ser Ser Ser Ser Ile Asn Leu Gly Gln Gln
 165 170 175
 Ser Met Pro Asn Arg Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile
 180 185 190
 Gly Leu Met Tyr Tyr Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly
 195 200 205
 Gln Ala Ser Gln Leu Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr
 210 215 220
 Glu Leu Ser Tyr Gln Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg
 225 230 235 240
 Tyr Phe Ser Met Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val
 245 250 255
 Arg Ile Ile Glu Asn His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys
 260 265 270
 Phe Pro Leu Asp Ala Val Gly Arg Thr Asp Thr Tyr Gln Gly Ile Lys
 275 280 285
 Ala Asn Gly Ala Asp Gln Thr Thr Trp Thr Lys Asp Asp Thr Val Asn
 290 295 300
 Asp Ala Asn Glu Leu Gly Lys Gly Asn Pro Phe
 305 310 315

<210> 16
 <211> 324
 <212> PRT
 <213> chimpanzee adenovirus Pan-6
 <400> 16

Ala Pro Lys Gly Ala Pro Asn Ser Ser Gln Trp Glu Gln Ala Lys Thr
 1 5 10 15
 Gly Asn Gly Gly Thr Met Glu Thr His Thr Tyr Gly Val Ala Pro Met
 20 25 30
 Gly Gly Glu Asn Ile Thr Lys Asp Gly Leu Gln Ile Gly Thr Asp Val
 35 40 45
 Thr Ala Asn Gln Asn Lys Pro Ile Tyr Ala Asp Lys Thr Phe Gln Pro
 50 55 60
 Glu Pro Gln Val Gly Glu Glu Asn Trp Gln Glu Thr Glu Asn Phe Tyr
 65 70 75 80
 Gly Gly Arg Ala Leu Lys Lys Asp Thr Lys Met Lys Pro Cys Tyr Gly
 85 90 95

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

<210> 17
 <211> 314
 <212> PRT
 <213> chimpanzee adenovirus Pan-7

<400> 17

Ala Pro Lys Gly Ala Pro Asn Thr Cys Gln Trp Thr Tyr Lys Ala Gly
 1 5 10 15
 Asp Thr Asp Thr Glu Lys Thr Tyr Thr Tyr Gly Asn Ala Pro Val Gln
 20 25 30

Gly Ile Ser Ile Thr Lys Asp Gly Ile Gln Leu Gly Thr Asp Ser Asp
 35 40 45
 Gly Gln Ala Ile Tyr Ala Asp Glu Thr Tyr Gln Pro Glu Pro Gln Val
 50 55 60
 Gly Asp Ala Glu Trp His Asp Ile Thr Gly Thr Asp Glu Lys Tyr Gly
 65 70 75 80
 Gly Arg Ala Leu Lys Pro Asp Thr Lys Met Lys Pro Cys Tyr Gly Ser
 85 90 95
 Phe Ala Lys Pro Thr Asn Lys Glu Gly Gly Gln Ala Asn Val Lys Thr
 100 105 110
 Glu Thr Gly Gly Thr Lys Glu Tyr Asp Ile Asp Met Ala Phe Phe Asp
 115 120 125
 Asn Arg Ser Ala Ala Ala Ala Gly Leu Ala Pro Glu Ile Val Leu Tyr
 130 135 140
 Thr Glu Asn Val Asp Leu Glu Thr Pro Asp Thr His Ile Val Tyr Lys
 145 150 155 160
 Ala Gly Thr Asp Asp Ser Ser Ser Ser Ile Asn Leu Gly Gln Gln Ser
 165 170 175
 Met Pro Asn Arg Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly
 180 185 190
 Leu Met Tyr Tyr Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln
 195 200 205
 Ala Ser Gln Leu Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu
 210 215 220
 Leu Ser Tyr Gln Leu Leu Leu Asp Ser Leu Gly Asp Arg Thr Arg Tyr
 225 230 235 240
 Phe Ser Met Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg
 245 250 255
 Ile Ile Glu Asn His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe
 260 265 270
 Pro Leu Asp Ala Val Gly Arg Thr Asp Thr Tyr Gln Gly Ile Lys Ala
 275 280 285
 Asn Gly Asp Asn Gln Thr Thr Trp Thr Lys Asp Asp Thr Val Asn Asp
 290 295 300
 Ala Asn Glu Leu Gly Lys Gly Asn Pro Phe
 305 310

<210> 18
 <211> 179
 <212> PRT
 <213> chimpanzee adenovirus Pan9

<400> 18

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

Ala Gln Glu

<210> 19
 <211> 185
 <212> PRT
 <213> chimpanzee adenovirus Pan6

<400> 19

Thr	Leu	Trp	Thr	Thr	Pro	Asp	Pro	Ser	Pro	Asn	Cys	Gln	Leu	Leu	Ser
1				5					10					15	
Asp	Arg	Asp	Ala	Lys	Phe	Thr	Leu	Cys	Leu	Thr	Lys	Cys	Gly	Ser	Gln
			20					25					30		

Ile Leu Gly Thr Val Ala Val Ala Val Thr Val Gly Ser Ala Leu
 35 40 45
 Asn Pro Ile Asn Asp Thr Val Lys Ser Ala Ile Val Phe Leu Arg Phe
 50 55 60
 Asp Ser Asp Gly Val Leu Met Ser Asn Ser Ser Met Val Gly Asp Tyr
 65 70 75 80
 Trp Asn Phe Arg Glu Gly Gln Thr Thr Gln Ser Val Ala Tyr Thr Asn
 85 90 95
 Ala Val Gly Phe Met Pro Asn Ile Gly Ala Tyr Pro Lys Thr Gln Ser
 100 105 110
 Lys Thr Pro Lys Asn Ser Ile Val Ser Gln Val Tyr Leu Thr Gly Glu
 115 120 125
 Thr Thr Met Pro Met Thr Leu Thr Ile Thr Phe Asn Gly Thr Asp Glu
 130 135 140
 Lys Asp Thr Thr Pro Val Ser Thr Tyr Ser Met Thr Phe Thr Trp Gln
 145 150 155 160
 Trp Thr Gly Asp Tyr Lys Asp Lys Asn Ile Thr Phe Ala Thr Asn Ser
 165 170 175
 Phe Ser Phe Ser Tyr Ile Ala Gln Glu
 180 185

<210> 20
 <211> 179
 <212> PRT
 <213> chimpanzee adenovirus Pan7
 <400> 20

Thr Leu Trp Thr Thr Ala Asp Pro Ser Pro Asn Cys Lys Ile Tyr Ser
 1 5 10 15
 Glu Lys Asp Ala Lys Leu Thr Leu Cys Leu Thr Lys Cys Gly Ser Gln
 20 25 30
 Ile Leu Gly Thr Val Thr Val Leu Ala Val Asn Asn Gly Ser Leu Asn
 35 40 45
 Pro Ile Thr Asn Thr Val Ser Thr Ala Leu Val Ser Leu Lys Phe Asp
 50 55 60
 Ala Ser Gly Val Leu Leu Ser Ser Ser Thr Leu Asp Lys Glu Tyr Trp
 65 70 75 80
 Asn Phe Arg Lys Gly Asp Val Thr Pro Ala Glu Pro Tyr Thr Asn Ala
 85 90 95

Ile Gly Phe Met Pro Asn Ile Lys Ala Tyr Pro Lys Asn Thr Ser Ala
 100 105 110
 Ala Ser Lys Ser His Ile Val Ser Gln Val Tyr Leu Asn Gly Asp Glu
 115 120 125
 Ala Lys Pro Leu Met Leu Ile Ile Thr Phe Asn Glu Thr Glu Asp Ala
 130 135 140
 Thr Cys Thr Tyr Ser Ile Thr Phe Gln Trp Lys Trp Asp Ser Thr Lys
 145 150 155 160
 Tyr Thr Gly Glu Thr Leu Ala Thr Ser Ser Phe Thr Phe Ser Tyr Ile
 165 170 175
 Ala Gln Glu

<210> 21
 <211> 179
 <212> PRT
 <213> chimpanzee adenovirus Pan5

<400> 21

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

Ala Lys Glu

<210> 22
<211> 183
<212> PRT
<213> human adenovirus Ad 2

<400> 22

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Thr Pro Ala Ala	Tyr Glu Gly Pro Pro	Pro Ser Tyr Glu	Ser Val Met			
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Gly Ser Ala Asn	Val Pro Ala Thr	Leu Glu Ala Pro	Tyr Val Pro Pro			
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Arg Tyr Leu Gly	Pro Thr Glu Gly	Arg Asn Ser Ile	Arg Tyr Ser Glu			
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Leu Ala Pro Leu	Tyr Asp Thr Thr	Lys Val Tyr Leu	Val Asp Asn Lys			
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Ser Ala Asp Ile	Ala Ser Leu Asn	Tyr Gln Asn Asp	His Ser Asn Phe			
	75	80	85			
ctg act acc gtg	gtg cag aac aat	gac ttc acc ccg	acg gag gcg ggc			12762
Leu Thr Thr Val	Val Gln Asn Asn	Asp Phe Thr Pro	Thr Glu Ala Gly			
	90	95	100			
acg cag acc att	aac ttt gac gag	cgt tcc cgc tgg	ggc ggt cag ctg			12810
Thr Gln Thr Ile	Asn Phe Asp Glu	Arg Ser Arg Trp	Gly Gly Gln Leu			
	105	110	115			
aaa acc atc ctg	cac acc aac atg	ccc aac atc aac	gag ttc atg tcc			12858
Lys Thr Ile Leu	His Thr Asn Met	Pro Asn Ile Asn	Glu Phe Met Ser			
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cga gag att cga ggc gac acc ttt gcc acg gaa cct cac gaa ctg gta Arg Glu Ile Arg Gly Asp Thr Phe Ala Thr Glu Pro His Glu Leu Val 300 305 310	13386
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Glu Asp Phe Asn Pro Val Tyr Pro Tyr Asp Thr Thr Thr Thr Pro	
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gca gtt ccc ttt ata tca ccc ccc ttt gta aac agc gat ggt ctt	28169
Ala Val Pro Phe Ile Ser Pro Pro Phe Val Asn Ser Asp Gly Leu	
	1460 1465 1470
cag gaa aac ccc cca ggt gtt tta agt ctg cga ata gct aaa ccc	28214
Gln Glu Asn Pro Pro Gly Val Leu Ser Leu Arg Ile Ala Lys Pro	
	1475 1480 1485
cta tat ttc gac atg gag aga aaa cta gcc ctt tca ctt gga aga	28259
Leu Tyr Phe Asp Met Glu Arg Lys Leu Ala Leu Ser Leu Gly Arg	
	1490 1495 1500
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Val Gln Thr Asn Pro Pro Leu Ile Ile Thr Asn Asn Asn Thr Leu	
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acc cta cgt cat	tct ccc ccc tta aac	cta act gac aat agc tta	28394
Thr Leu Arg His	Ser Pro Pro Leu Asn	Leu Thr Asp Asn Ser Leu	
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Val Leu Gly Tyr	Ser Ser Pro Leu Arg	Val Thr Asp Asn Lys Leu	
1550	1555	1560	
aca ttt aac ttc	aca tca cca ctc cgt	tat gaa aat gaa aac ctt	28484
Thr Phe Asn Phe	Thr Ser Pro Leu Arg	Tyr Glu Asn Glu Asn Leu	
1565	1570	1575	
act ttt aac tat	aca gag cct ctt aaa	ctt ata aat aac agc ctt	28529
Thr Phe Asn Tyr	Thr Glu Pro Leu Lys	Leu Ile Asn Asn Ser Leu	
1580	1585	1590	
gcc att gac atc	aat tcc tca aaa ggc	ctt agt agc gtc gga ggc	28574
Ala Ile Asp Ile	Asn Ser Ser Lys Gly	Leu Ser Ser Val Gly Gly	
1595	1600	1605	
tca cta gct gta	aac ctg agt tca gac	tta aag ttt gac agc aac	28619
Ser Leu Ala Val	Asn Leu Ser Ser Asp	Leu Lys Phe Asp Ser Asn	
1610	1615	1620	
gga tcc ata gct	ttt ggc ata caa acc	ctg tgg acc gct ccg acc	28664
Gly Ser Ile Ala	Phe Gly Ile Gln Thr	Leu Trp Thr Ala Pro Thr	
1625	1630	1635	
tcg act ggc aac	tgc acc gtc tac agc	gag ggc gat tcc cta ctt	28709
Ser Thr Gly Asn	Cys Thr Val Tyr Ser	Glu Gly Asp Ser Leu Leu	
1640	1645	1650	
agt ctc tgt tta	acc aaa tgc gga gct	cac gtc tta gga agt gta	28754
Ser Leu Cys Leu	Thr Lys Cys Gly Ala	His Val Leu Gly Ser Val	
1655	1660	1665	
agt tta acc ggt	tta aca gga acc ata	acc caa atg act gat att	28799
Ser Leu Thr Gly	Leu Thr Gly Thr Ile	Thr Gln Met Thr Asp Ile	
1670	1675	1680	
tct gtc acc att	caa ttt aca ttt gac	aac aat ggt aag cta cta	28844
Ser Val Thr Ile	Gln Phe Thr Phe Asp	Asn Asn Gly Lys Leu Leu	
1685	1690	1695	
agc tct cca ctt	ata aac aac gcc ttt	agt att cga cag aat gac	28889
Ser Ser Pro Leu	Ile Asn Asn Ala Phe	Ser Ile Arg Gln Asn Asp	
1700	1705	1710	
agt acg gcc tca	aac cct acc tac aac	gcc ctg gcg ttt atg cct	28934
Ser Thr Ala Ser	Asn Pro Thr Tyr Asn	Ala Leu Ala Phe Met Pro	
1715	1720	1725	
aac agt acc ata	tat gca aga ggg gga	ggt ggt gaa cca cga aac	28979
Asn Ser Thr Ile	Tyr Ala Arg Gly Gly	Gly Gly Glu Pro Arg Asn	
1730	1735	1740	

aac tac tac gtc	caa acg tat ctt agg	gga aat gtt caa aaa cca	29024
Asn Tyr Tyr Val	Gln Thr Tyr Leu Arg	Gly Asn Val Gln Lys Pro	
1745	1750	1755	
atc att ctt act	gta acc tac aac tca	gtc gcc aca gga tat tcc	29069
Ile Ile Leu Thr	Val Thr Tyr Asn Ser	Val Ala Thr Gly Tyr Ser	
1760	1765	1770	
tta tot ttt aag	tgg act gct ctt gca	cgt gaa aag ttt gca acc	29114
Leu Ser Phe Lys	Trp Thr Ala Leu Ala	Arg Glu Lys Phe Ala Thr	
1775	1780	1785	
cca aca acc tcg	ttt tgc tac att aca	gaa caa taa aaccgtgtac	29160
Pro Thr Thr Ser	Phe Cys Tyr Ile Thr	Glu Gln	
1790	1795		
cccacccgttt	cgttttttttc ag	atg aaa cgg	29209
		Met Lys Arg	
		1800	
		gcg aga gtt gat gaa gac	
		Ala Arg Val Asp Glu Asp	
		1805	
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Phe Asn Pro Val	Tyr Pro Tyr Asp Pro	Pro His Ala Pro Val Met	
1810	1815	1820	
ccc ttc att act	cca cct ttt acc tcc	tcg gat ggg ttg cag gaa	29299
Pro Phe Ile Thr	Pro Pro Phe Thr Ser	Ser Asp Gly Leu Gln Glu	
1825	1830	1835	
aaa cca ctt gga	gtg tta agt tta aac	tac aga gat ccc att act	29344
Lys Pro Leu Gly	Val Leu Ser Leu Asn	Tyr Arg Asp Pro Ile Thr	
1840	1845	1850	
acg caa aat gag	tot ctt aca att aaa	cta gga aac ggc ctc act	29389
Thr Gln Asn Glu	Ser Leu Thr Ile Lys	Leu Gly Asn Gly Leu Thr	
1855	1860	1865	
cta gac aac cag	gga caa cta aca tca	acc gct ggc gaa gta gaa	29434
Leu Asp Asn Gln	Gly Gln Leu Thr Ser	Thr Ala Gly Glu Val Glu	
1870	1875	1880	
cct cca ctc act	aac gct aac aac aaa	ctt gca ctg gtc tat agc	29479
Pro Pro Leu Thr	Asn Ala Asn Asn Lys	Leu Ala Leu Val Tyr Ser	
1885	1890	1895	
gat cct tta gca	gta aag cgc aac agc	cta acc tta tcg cac acc	29524
Asp Pro Leu Ala	Val Lys Arg Asn Ser	Leu Thr Leu Ser His Thr	
1900	1905	1910	
gct ccc ctt gtt	att gct gat aac tct	tta gca ttg caa gtt tca	29569
Ala Pro Leu Val	Ile Ala Asp Asn Ser	Leu Ala Leu Gln Val Ser	
1915	1920	1925	
gag cct att ttt	ata aat gac aag gac	aaa cta gcc ctg caa aca	29614
Glu Pro Ile Phe	Ile Asn Asp Lys Asp	Lys Leu Ala Leu Gln Thr	
1930	1935	1940	

gcc gcg ccc ctt	gta act aac gct	ggc acc ctt cgc tta caa agc	29659
Ala Ala Pro Leu	Val Thr Asn Ala Gly	Thr Leu Arg Leu Gln Ser	
1945	1950	1955	
gcc gcc cct tta	ggc att gca gac caa	acc cta aaa ctc ctg ttt	29704
Ala Ala Pro Leu	Gly Ile Ala Asp Gln	Thr Leu Lys Leu Leu Phe	
1960	1965	1970	
acc aac cct ttg	tac ttg cag aat aac	ttt ctc acg tta gcc att	29749
Thr Asn Pro Leu	Tyr Leu Gln Asn Asn	Phe Leu Thr Leu Ala Ile	
1975	1980	1985	
gaa cga ccc ctt	gcc att acc aat act	gga aag ctg gct cta cag	29794
Glu Arg Pro Leu	Ala Ile Thr Asn Thr	Gly Lys Leu Ala Leu Gln	
1990	1995	2000	
ctc tcc cca ccg	cta caa aca gca gac	aca ggc ttg act ttg caa	29839
Leu Ser Pro Pro	Leu Gln Thr Ala Asp	Thr Gly Leu Thr Leu Gln	
2005	2010	2015	
acc aac gtg cca	tta act gta agc aac	ggg acc cta ggc tta gcc	29884
Thr Asn Val Pro	Leu Thr Val Ser Asn	Gly Thr Leu Gly Leu Ala	
2020	2025	2030	
ata aag cgc cca	ctt att att cag gac	aac aac ttg ttt ttg gac	29929
Ile Lys Arg Pro	Leu Ile Ile Gln Asp	Asn Asn Leu Phe Leu Asp	
2035	2040	2045	
ttc aga gct ccc	ctg cgt ctt ttc aac	agc gac cca gta cta ggg	29974
Phe Arg Ala Pro	Leu Arg Leu Phe Asn	Ser Asp Pro Val Leu Gly	
2050	2055	2060	
ctt aac ttt tac	acc cct ctt gcg gta	cgc gat gag gcg ctc act	30019
Leu Asn Phe Tyr	Thr Pro Leu Ala Val	Arg Asp Glu Ala Leu Thr	
2065	2070	2075	
gtt aac aca ggc	cgc ggc ctc aca gtg	agt tac gat ggt tta att	30064
Val Asn Thr Gly	Arg Gly Leu Thr Val	Ser Tyr Asp Gly Leu Ile	
2080	2085	2090	
tta aat ctt ggt	aag gat ctt cgc ttt	gac aac aac acc gtt tct	30109
Leu Asn Leu Gly	Lys Asp Leu Arg Phe	Asp Asn Asn Thr Val Ser	
2095	2100	2105	
gtc gct ctt agt	gct gct ttg cct tta	caa tac act gat cag ctt	30154
Val Ala Leu Ser	Ala Ala Leu Pro Leu	Gln Tyr Thr Asp Gln Leu	
2110	2115	2120	
cgc ctt aac gtg	ggc gct ggg ctg cgt	tac aat cca gtg agt aag	30199
Arg Leu Asn Val	Gly Ala Gly Leu Arg	Tyr Asn Pro Val Ser Lys	
2125	2130	2135	
aaa ttg gac gtg	aac ccc aat caa aac	aag ggt tta acc tgg gaa	30244
Lys Leu Asp Val	Asn Pro Asn Gln Asn	Lys Gly Leu Thr Trp Glu	
2140	2145	2150	

aat gac tac ctc	att gta aag cta gga	aat gga tta ggt ttt gat	30289
Asn Asp Tyr Leu	Ile Val Lys Leu Gly	Asn Gly Leu Gly Phe Asp	
2155	2160	2165	
ggc gat gga aac	ata gct gtt tct cct	caa gtt aca tcg cct gac	30334
Gly Asp Gly Asn	Ile Ala Val Ser Pro	Gln Val Thr Ser Pro Asp	
2170	2175	2180	
acc tta tgg acc	act gcc gac cca tcc	ccc aat tgt tcc atc tac	30379
Thr Leu Trp Thr	Thr Ala Asp Pro Ser	Pro Asn Cys Ser Ile Tyr	
2185	2190	2195	
act gat tta gat	gcc aaa atg tgg ctc	tcg ttg gta aaa caa ggg	30424
Thr Asp Leu Asp	Ala Lys Met Trp Leu	Ser Leu Val Lys Gln Gly	
2200	2205	2210	
ggg gtg gtt cac	ggg tct gtt gct tta	aaa gca ttg aaa gga acc	30469
Gly Val Val His	Gly Ser Val Ala Leu	Lys Ala Leu Lys Gly Thr	
2215	2220	2225	
cta ttg agt cct	acg gaa agc gcc att	gtt att ata cta cat ttt	30514
Leu Leu Ser Pro	Thr Glu Ser Ala Ile	Val Ile Ile Leu His Phe	
2230	2235	2240	
gac aat tat gga	gtg cga att ctc aat	tat ccc act ttg ggc act	30559
Asp Asn Tyr Gly	Val Arg Ile Leu Asn	Tyr Pro Thr Leu Gly Thr	
2245	2250	2255	
caa ggc acg ttg	gga aat aat gca act	tggt ggt tat agg cag gga	30604
Gln Gly Thr Leu	Gly Asn Asn Ala Thr	Trp Gly Tyr Arg Gln Gly	
2260	2265	2270	
gaa tct gca gac	act aat gta ctc aat	gca cta gca ttt atg ccc	30649
Glu Ser Ala Asp	Thr Asn Val Leu Asn	Ala Leu Ala Phe Met Pro	
2275	2280	2285	
agt tca aaa agg	tac cca aga ggg cgt	gga agc gaa gtt cag aat	30694
Ser Ser Lys Arg	Tyr Pro Arg Gly Arg	Gly Ser Glu Val Gln Asn	
2290	2295	2300	
caa act gtg ggc	tac act tgt ata cag	ggg gac ttt tct atg ccc	30739
Gln Thr Val Gly	Tyr Thr Cys Ile Gln	Gly Asp Phe Ser Met Pro	
2305	2310	2315	
gta ccg tac caa	ata cag tac aac tat	gga cca act ggc tac tcc	30784
Val Pro Tyr Gln	Ile Gln Tyr Asn Tyr	Gly Pro Thr Gly Tyr Ser	
2320	2325	2330	
ttt aaa ttt att	tggt aga act gtt tca	aga caa cca ttt gac atc	30829
Phe Lys Phe Ile	Trp Arg Thr Val Ser	Arg Gln Pro Phe Asp Ile	
2335	2340	2345	
cca tgc tgt ttt	ttc tct tac att acg	gaa gaa taa aacaactttt	30875
Pro Cys Cys Phe	Phe Ser Tyr Ile Thr	Glu Glu	
2350	2355		
tcctttttatt	ttcttttttat	tttacacgca	cagtaaggct
tcctccaccc	ttocatctca	30935	

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 taataccgca ccaccacga ccaaagttca cccacacca caaaaccgc gaaaatccag 33575
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 caggtcacc cggcccgcc tcgctcctcc ccgctcatta tcatattggc acgtttccag 33755
 aataaggtat attattgatg cagcaaaaaca atccctctgg gagcaatcac aaaatcctcc 33815
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<210> 25
 <211> 503
 <212> PRT
 <213> simian adenovirus SV-1

<400> 25

Met	Arg	Arg	Ala	Val	Arg	Val	Thr	Pro	Ala	Ala	Tyr	Glu	Gly	Pro	Pro	1	5	10	15
Pro	Ser	Tyr	Glu	Ser	Val	Met	Gly	Ser	Ala	Asn	Val	Pro	Ala	Thr	Leu	20	25	30	
Glu	Ala	Pro	Tyr	Val	Pro	Pro	Arg	Tyr	Leu	Gly	Pro	Thr	Glu	Gly	Arg	35	40	45	
Asn	Ser	Ile	Arg	Tyr	Ser	Glu	Leu	Ala	Pro	Leu	Tyr	Asp	Thr	Thr	Lys	50	55	60	
Val	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	Gly	Thr	Gln	Thr	Ile	Asn	Phe	Asp	Glu	Arg	100	105	110	
Ser	Arg	Trp	Gly	Gly	Gln	Leu	Lys	Thr	Ile	Leu	His	Thr	Asn	Met	Pro	115	120	125	
Asn	Ile	Asn	Glu	Phe	Met	Ser	Thr	Asn	Lys	Phe	Arg	Ala	Arg	Leu	Met	130	135	140	
Val	Lys	Lys	Ala	Glu	Asn	Gln	Pro	Pro	Glu	Tyr	Glu	Trp	Phe	Glu	Phe	145	150	155	160
Thr	Ile	Pro	Glu	Gly	Asn	Tyr	Ser	Glu	Thr	Met	Thr	Ile	Asp	Leu	Met	165	170	175	
Asn	Asn	Ala	Ile	Val	Asp	Asn	Tyr	Leu	Gln	Val	Gly	Arg	Gln	Asn	Gly	180	185	190	
Val	Leu	Glu	Ser	Asp	Ile	Gly	Val	Lys	Phe	Asp	Thr	Arg	Asn	Phe	Arg	195	200	205	
Leu	Gly	Trp	Asp	Pro	Val	Thr	Lys	Leu	Val	Met	Pro	Gly	Val	Tyr	Thr	210	215	220	
Asn	Glu	Ala	Phe	His	Pro	Asp	Ile	Val	Leu	Leu	Pro	Gly	Cys	Gly	Val	225	230	235	240
Asp	Phe	Thr	Gln	Ser	Arg	Leu	Ser	Asn	Leu	Leu	Gly	Ile	Arg	Lys	Arg	245	250	255	
Arg	Pro	Phe	Gln	Glu	Gly	Phe	Gln	Ile	Met	Tyr	Glu	Asp	Leu	Glu	Gly	260	265	270	

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

<210> 26
 <211> 931
 <212> PRT
 <213> simian adenovirus SV-1

<400> 26

Met Ala Thr Pro Ser Met Met Pro Gln Trp Ser 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 Thr Ala 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 Pro Ala Glu Trp Thr Asn Ser Asp Ser Lys Val Lys Val
 130 135 140
 Arg Ala Gln Ala Pro Phe Val Ser Ser Tyr Gly Ala Thr Ala Ile Thr
 145 150 155 160
 Lys Glu Gly Ile Gln Val Gly Val Thr Leu Thr Asp Ser Gly Ser Thr
 165 170 175
 Pro Gln Tyr Ala Asp Lys Thr Tyr Gln Pro Glu Pro Gln Ile Gly Glu
 180 185 190
 Leu Gln Trp Asn Ser Asp Val Gly Thr Asp Asp Lys Ile Ala Gly Arg
 195 200 205
 Val Leu Lys Lys Thr Thr Pro Met Phe Pro Cys Tyr Gly Ser Tyr Ala
 210 215 220
 Arg Pro Thr Asn Glu Lys Gly Gly Gln Ala Thr Pro Ser Ala Ser Gln
 225 230 235 240
 Asp Val Gln Asn Pro Glu Leu Gln Phe Phe Ala Ser Thr Asn Val Ala
 245 250 255
 Asn Thr Pro Lys Ala Val Leu Tyr Ala Glu Asp Val Ser Ile Glu Ala
 260 265 270
 Pro Asp Thr His Leu Val Phe Lys Pro Thr Val Thr Glu Gly Ile Thr
 275 280 285
 Ser Ser Glu Ala Leu Leu Thr Gln Gln Ala Ala Pro Asn Arg Pro Asn
 290 295 300
 Tyr Ile Ala Phe Arg Asp Asn Phe Ile Gly Leu Met Tyr Tyr Asn Ser
 305 310 315 320

Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser Gln Leu Asn Ala
 325 330 335
 Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr Gln Leu Met
 340 345 350
 Leu Asp Ala Leu Gly Asp Arg Ser Arg Tyr Phe Ser Met Trp Asn Gln
 355 360 365
 Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile Glu Asn His Gly
 370 375 380
 Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu Gly Gly Met Ala
 385 390 395 400
 Val Thr Asp Thr Tyr Ser Pro Ile Lys Val Asn Gly Gly Gly Asn Gly
 405 410 415
 Trp Glu Ala Asn Asn Gly Val Phe Thr Glu Arg Gly Val Glu Ile Gly
 420 425 430
 Ser Gly Asn Met Phe Ala Met Glu Ile Asn Leu Gln Ala Asn Leu Trp
 435 440 445
 Arg Ser Phe Leu Tyr Ser Asn Ile Gly Leu Tyr Leu Pro Asp Ser Leu
 450 455 460
 Lys Ile Thr Pro Asp Asn Ile Thr Leu Pro Glu Asn Lys Asn Thr Tyr
 465 470 475 480
 Gln Tyr Met Asn Gly Arg Val Thr Pro Pro Gly Leu Val Asp Thr Tyr
 485 490 495
 Val Asn Val Gly Ala Arg Trp Ser Pro Asp Val Met Asp Ser Ile Asn
 500 505 510
 Pro Phe Asn His His Arg Asn Ala Gly Leu Arg Tyr Arg Ser Met Leu
 515 520 525
 Leu Gly Asn Gly Arg Tyr Val Pro Phe His Ile Gln Val Pro Gln Lys
 530 535 540
 Phe Phe Ala Ile Lys Asn Leu Leu Leu Leu Pro Gly Ser Tyr Thr Tyr
 545 550 555 560
 Glu Trp Asn Phe Arg Lys Asp Val Asn Met Ile Leu Gln Ser Ser Leu
 565 570 575
 Gly Asn Asp Leu Arg Val Asp Gly Ala Ser Ile Arg Phe Asp Ser Ile
 580 585 590
 Asn Leu Tyr Ala Asn Phe Phe Pro Met Ala His Asn Thr Ala Ser Thr
 595 600 605
 Leu Glu Ala Met Leu Arg Asn Asp Thr Asn Asp Gln Ser Phe Asn Asp
 610 615 620

Tyr Leu Cys Ala Ala Asn Met Leu Tyr Pro Ile Pro Ala Asn Ala Thr
625 630 635 640
Ser Val Pro Ile Ser Ile Pro Ser Arg Asn Trp Ala Ala Phe Arg Gly
645 650 655
Trp Ser Phe Thr Arg Leu Lys Thr Lys Glu Thr Pro Ser Leu Gly Ser
660 665 670
Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly Ser Ile Pro Tyr Leu Asp
675 680 685
Gly Thr Phe Tyr Leu Asn His Thr Phe Lys Lys Val Ser Ile Met Phe
690 695 700
Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu Thr Pro Asn
705 710 715 720
Glu Phe Glu Ile Lys Arg Ser Val Asp Gly Glu Gly Tyr Asn Val Ala
725 730 735
Gln Ser Asn Met Thr Lys Asp Trp Phe Leu Ile Gln Met Leu Ser His
740 745 750
Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val Pro Glu Asn Tyr Lys Asp
755 760 765
Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser Arg Gln Ile
770 775 780
Val Asp Ser Thr Ala Tyr Thr Asn Tyr Gln Asp Val Lys Leu Pro Tyr
785 790 795 800
Gln His Asn Asn Ser Gly Phe Val Gly Tyr Met Gly Pro Thr Met Arg
805 810 815
Glu Gly Gln Ala Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile Gly Ala
820 825 830
Thr Ala Val Pro Ser Leu Thr Gln Lys Lys Phe Leu Cys Asp Arg Val
835 840 845
Met Trp Arg Ile Pro Phe Ser Ser Asn Phe Met Ser Met Gly Ser Leu
850 855 860
Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala Asn Ser Ala His Ala Leu
865 870 875 880
Asp Met Thr Phe Glu Val Asp Pro Met Asp Glu Pro Thr Leu Leu Tyr
885 890 895
Val Leu Phe Glu Val Phe Asp Val Val Arg Ile His Gln Pro His Arg
900 905 910

Gly Val Ile Glu Ala Val Tyr Leu Arg Thr Pro Phe Ser Ala Gly Asn
 915 920 925

Ala Thr Thr
 930

<210> 27
 <211> 363
 <212> PRT
 <213> simian adenovirus SV-1

<400> 27

Met Lys Arg Thr Arg Val Asp Glu Asp Phe Asn Pro Val Tyr Pro Tyr
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Asp Thr Thr Thr Thr Pro Ala Val Pro Phe Ile Ser Pro Pro Phe Val
 20 25 30

Asn Ser Asp Gly Leu Gln Glu Asn Pro Pro Gly Val Leu Ser Leu Arg
 35 40 45

Ile Ala Lys Pro Leu Tyr Phe Asp Met Glu Arg Lys Leu Ala Leu Ser
 50 55 60

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

Gln Ser Val Gln Thr Asn Pro Pro Leu Ile Ile Thr Asn Asn Asn Thr
 85 90 95

Leu Thr Leu Arg His Ser Pro Pro Leu Asn Leu Thr Asp Asn Ser Leu
 100 105 110

Val Leu Gly Tyr Ser Ser Pro Leu Arg Val Thr Asp Asn Lys Leu Thr
 115 120 125

Phe Asn Phe Thr Ser Pro Leu Arg Tyr Glu Asn Glu Asn Leu Thr Phe
 130 135 140

Asn Tyr Thr Glu Pro Leu Lys Leu Ile Asn Asn Ser Leu Ala Ile Asp
 145 150 155 160

Ile Asn Ser Ser Lys Gly Leu Ser Ser Val Gly Gly Ser Leu Ala Val
 165 170 175

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

Gly Ile Gln Thr Leu Trp Thr Ala Pro Thr Ser Thr Gly Asn Cys Thr
 195 200 205

Val Tyr Ser Glu Gly Asp Ser Leu Leu Ser Leu Cys Leu Thr Lys Cys
 210 215 220

Gly Ala His Val Leu Gly Ser Val Ser Leu Thr Gly Leu Thr Gly Thr
 225 230 235 240

Ile Thr Gln Met Thr Asp Ile Ser Val Thr Ile Gln Phe Thr Phe Asp
 245 250 255

Asn Asn Gly Lys Leu Leu Ser Ser Pro Leu Ile Asn Asn Ala Phe Ser
 260 265 270

Ile Arg Gln Asn Asp Ser Thr Ala Ser Asn Pro Thr Tyr Asn Ala Leu
 275 280 285

Ala Phe Met Pro Asn Ser Thr Ile Tyr Ala Arg Gly Gly Gly Gly Glu
 290 295 300

Pro Arg Asn Asn Tyr Tyr Val Gln Thr Tyr Leu Arg Gly Asn Val Gln
 305 310 315 320

Lys Pro Ile Ile Leu Thr Val Thr Tyr Asn Ser Val Ala Thr Gly Tyr
 325 330 335

Ser Leu Ser Phe Lys Trp Thr Ala Leu Ala Arg Glu Lys Phe Ala Thr
 340 345 350

Pro Thr Thr Ser Phe Cys Tyr Ile Thr Glu Gln
 355 360

<210> 28

<211> 560

<212> PRT

<213> simian adenovirus SV-1

<400> 28

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

Asp Pro Pro His Ala Pro Val Met Pro Phe Ile Thr Pro Pro Phe Thr
 20 25 30

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

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

Gly Asn Gly Leu Thr Leu Asp Asn Gln Gly Gln Leu Thr Ser Thr Ala
 65 70 75 80

Gly Glu Val Glu Pro Pro Leu Thr Asn Ala Asn Asn Lys Leu Ala Leu
 85 90 95

Val Tyr Ser Asp Pro Leu Ala Val Lys Arg Asn Ser Leu Thr Leu Ser
 100 105 110

His Thr Ala Pro Leu Val Ile Ala Asp Asn Ser Leu Ala Leu Gln Val
 115 120 125
 Ser Glu Pro Ile Phe Ile Asn Asp Lys Asp Lys Leu Ala Leu Gln Thr
 130 135 140
 Ala Ala Pro Leu Val Thr Asn Ala Gly Thr Leu Arg Leu Gln Ser Ala
 145 150 155 160
 Ala Pro Leu Gly Ile Ala Asp Gln Thr Leu Lys Leu Leu Phe Thr Asn
 165 170 175
 Pro Leu Tyr Leu Gln Asn Asn Phe Leu Thr Leu Ala Ile Glu Arg Pro
 180 185 190
 Leu Ala Ile Thr Asn Thr Gly Lys Leu Ala Leu Gln Leu Ser Pro Pro
 195 200 205
 Leu Gln Thr Ala Asp Thr Gly Leu Thr Leu Gln Thr Asn Val Pro Leu
 210 215 220
 Thr Val Ser Asn Gly Thr Leu Gly Leu Ala Ile Lys Arg Pro Leu Ile
 225 230 235 240
 Ile Gln Asp Asn Asn Leu Phe Leu Asp Phe Arg Ala Pro Leu Arg Leu
 245 250 255
 Phe Asn Ser Asp Pro Val Leu Gly Leu Asn Phe Tyr Thr Pro Leu Ala
 260 265 270
 Val Arg Asp Glu Ala Leu Thr Val Asn Thr Gly Arg Gly Leu Thr Val
 275 280 285
 Ser Tyr Asp Gly Leu Ile Leu Asn Leu Gly Lys Asp Leu Arg Phe Asp
 290 295 300
 Asn Asn Thr Val Ser Val Ala Leu Ser Ala Ala Leu Pro Leu Gln Tyr
 305 310 315 320
 Thr Asp Gln Leu Arg Leu Asn Val Gly Ala Gly Leu Arg Tyr Asn Pro
 325 330 335
 Val Ser Lys Lys Leu Asp Val Asn Pro Asn Gln Asn Lys Gly Leu Thr
 340 345 350
 Trp Glu Asn Asp Tyr Leu Ile Val Lys Leu Gly Asn Gly Leu Gly Phe
 355 360 365
 Asp Gly Asp Gly Asn Ile Ala Val Ser Pro Gln Val Thr Ser Pro Asp
 370 375 380
 Thr Leu Trp Thr Thr Ala Asp Pro Ser Pro Asn Cys Ser Ile Tyr Thr
 385 390 395 400
 Asp Leu Asp Ala Lys Met Trp Leu Ser Leu Val Lys Gln Gly Gly Val
 405 410 415

Val His Gly Ser Val Ala Leu Lys Ala Leu Lys Gly Thr Leu Leu Ser
 420 425 430
 Pro Thr Glu Ser Ala Ile Val Ile Ile Leu His Phe Asp Asn Tyr Gly
 435 440 445
 Val Arg Ile Leu Asn Tyr Pro Thr Leu Gly Thr Gln Gly Thr Leu Gly
 450 455 460
 Asn Asn Ala Thr Trp Gly Tyr Arg Gln Gly Glu Ser Ala Asp Thr Asn
 465 470 475 480
 Val Leu Asn Ala Leu Ala Phe Met Pro Ser Ser Lys Arg Tyr Pro Arg
 485 490 495
 Gly Arg Gly Ser Glu Val Gln Asn Gln Thr Val Gly Tyr Thr Cys Ile
 500 505 510
 Gln Gly Asp Phe Ser Met Pro Val Pro Tyr Gln Ile Gln Tyr Asn Tyr
 515 520 525
 Gly Pro Thr Gly Tyr Ser Phe Lys Phe Ile Trp Arg Thr Val Ser Arg
 530 535 540
 Gln Pro Phe Asp Ile Pro Cys Cys Phe Phe Ser Tyr Ile Thr Glu Glu
 545 550 555 560

<210> 29
 <211> 31044
 <212> DNA
 <213> simian adenovirus SV-25

<220>
 <221> CDS
 <222> (12284)..(13801)
 <223> Penton

<220>
 <221> CDS
 <222> (16681)..(19446)
 <223> Hexon

<220>
 <221> CDS
 <222> (25380)..(26423)
 <223> Fiber #2

<220>
 <221> CDS
 <222> (26457)..(28136)
 <223> Fiber #1

<400> 29

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60

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goggggtgtgt gtgtgggagg cgcttagttt ttacgtatgc ggaaggagggt ttataaccgg	180
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gaa agc gat atc ggc gtg aaa ttc gat acc aga aac ttc cga ctg ggg Glu Ser Asp Ile Gly Val Lys Phe Asp Thr Arg Asn Phe Arg Leu Gly 200 205 210	12919
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gcc aaa gcg gag ggt aga gag att ccg gga gac acc ttt gcg gta gct Ala Lys Ala Glu Gly Arg Glu Ile Arg Gly Asp Thr Phe Ala Val Ala 295 300 305	13207
ccc cag gac ctg gaa ata gtg cct tta act aaa gac agc aaa gac aga Pro Gln Asp Leu Glu Ile Val Pro Leu Thr Lys Asp Ser Lys Asp Arg 310 315 320	13255
agc tac aat att ata aac aac acg acg gac acc ctg tat ccg agc tgg Ser Tyr Asn Ile Ile Asn Asn Thr Thr Asp Thr Leu Tyr Arg Ser Trp 325 330 335 340	13303
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acc ata ctc acc acc acg gac gtg acc tgt ggc tcg cag caa gtg tac Thr Ile Leu Thr Thr Asp Val Thr Cys Gly Ser Gln Gln Val Tyr 360 365 370	13399
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cgc cag tcc acc gcg ctt acc cac gtg ttc aat cgc ttt ccc gag aac Arg Gln Ser Thr Ala Leu Thr His Val Phe Asn Arg Phe Pro Glu Asn 425 430 435	13591
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Asn	Trp	Ala	Ala	Phe	Arg	Gly	Trp	Ser	Phe	Thr	Arg	Leu	Lys	Thr	
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Lys	Glu	Thr	Pro	Ser	Leu	Gly	Ser	Gly	Phe	Asp	Pro	Tyr	Phe	Val	
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Tyr	Ser	Gly	Ser	Ile	Pro	Tyr	Leu	Asp	Gly	Thr	Phe	Tyr	Leu	Asn	
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His	Thr	Phe	Lys	Lys	Val	Ser	Ile	Met	Phe	Asp	Ser	Ser	Val	Ser	
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Lys	Arg	Ser	Val	Asp	Gly	Glu	Gly	Tyr	Asn	Val	Ala	Gln	Ser	Asn	
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	Met Lys Ile Cys
	1430
gtt gtc atc ttt gcg ctc agt tta ata aaa act gaa ctt ttt gcc	25436
Val Val Ile Phe Ala Leu Ser Leu Ile Lys Thr Glu Leu Phe Ala	
1435	1440
	1445

gta cct tca acg cca	cgc gtt gtt tct cct	tgt gaa aaa acc cca	25481
Val Pro Ser Thr Pro	Arg Val Val Ser Pro	Cys Glu Lys Thr Pro	
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Gly Val Leu Asn Leu	His Ile Ala Lys Pro	Leu Tyr Phe Thr Ile	
1465	1470	1475	
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Glu Lys Gln Leu Ala	Leu Ser Ile Gly Lys	Gly Leu Thr Ile Ser	
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gct aca gga cag ttg	gaa agc aca gca agc	gta cag gac agc gct	25616
Ala Thr Gly Gln Leu	Glu Ser Thr Ala Ser	Val Gln Asp Ser Ala	
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Thr Pro Pro Leu Arg	Gly Ile Ser Pro Leu	Lys Leu Thr Asp Asn	
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Gly Leu Thr Leu Ser	Tyr Ser Asp Pro Leu	Arg Val Val Gly Asp	
1525	1530	1535	
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Gln Leu Thr Phe Asn	Phe Thr Ser Pro Leu	Arg Tyr Glu Asn Gly	
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Ser Leu Thr Phe Asn	Tyr Thr Ser Pro Met	Thr Leu Ile Asn Asn	
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Ser Leu Ala Ile Asn	Val Asn Thr Ser Lys	Gly Leu Ser Ser Asp	
1570	1575	1580	
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Asn Gly Thr Leu Ala	Val Asn Val Thr Pro	Asp Phe Arg Phe Asn	
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agc tct ggt gcc tta	act ttt ggc ata caa	agt cta tgg act ttt	25931
Ser Ser Gly Ala Leu	Thr Phe Gly Ile Gln	Ser Leu Trp Thr Phe	
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cca acc aaa act cct	aac tgt acc gtg ttt	acc gaa agt gac tcc	25976
Pro Thr Lys Thr Pro	Asn Cys Thr Val Phe	Thr Glu Ser Asp Ser	
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Leu Leu Ser Leu Cys	Leu Thr Lys Cys Gly	Ala His Val Leu Gly	
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Ser Val Ser Leu Ser	Gly Val Ala Gly Thr	Met Leu Lys Met Thr	
1645	1650	1655	

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His Thr Ser Val Thr Val Gln Phe Ser Phe Asp Asp Ser Gly Lys	
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Leu Ile Phe Ser Pro Leu Ala Asn Asn Thr Trp Gly Val Arg Gln	
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Ser Glu Ser Pro Leu Pro Asn Pro Ser Phe Asn Ala Leu Thr Phe	
1690 1695 1700	
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Met Pro Asn Ser Thr Ile Tyr Ser Arg Gly Ala Ser Asn Glu Pro	
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caa aac aat tat tat gtc cag acg tat ctt aga ggc aac gtg cga	26291
Gln Asn Asn Tyr Tyr Val Gln Thr Tyr Leu Arg Gly Asn Val Arg	
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Lys Pro Ile Leu Leu Thr Val Thr Tyr Asn Ser Val Asn Ser Gly	
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Tyr Ser Leu Thr Phe Lys Trp Asp Ala Val Ala Asn Glu Lys Phe	
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Ala Thr Pro Thr Ser Ser Phe Cys Tyr Val Ala Glu Gln	
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Met Lys Arg Ala Arg Val	
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gat gaa gac ttc aac cca gtg tac cct tat gac ccc cca tac gct	26519
Asp Glu Asp Phe Asn Pro Val Tyr Pro Tyr Asp Pro Pro Tyr Ala	
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Pro Val Met Pro Phe Ile Thr Pro Pro Phe Thr Ser Ser Asp Gly	
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Leu Gln Glu Lys Pro Leu Gly Val Leu Ser Leu Asn Tyr Arg Asp	
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Glu	Val	Glu	Pro	Pro	Leu	Thr	Asn	Ala	Asn	Asn	Lys	Leu	Ala	Leu	
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gcc	tat	agc	gaa	cca	tta	gca	gta	aaa	agc	aac	cgc	cta	act	cta	26789
Ala	Tyr	Ser	Glu	Pro	Leu	Ala	Val	Lys	Ser	Asn	Arg	Leu	Thr	Leu	
1870					1875					1880					
tca	cac	acc	gct	ccc	ctt	gtc	atc	gct	aat	aat	tct	tta	gcg	ttg	26834
Ser	His	Thr	Ala	Pro	Leu	Val	Ile	Ala	Asn	Asn	Ser	Leu	Ala	Leu	
1885					1890					1895					
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Gln	Val	Ser	Glu	Pro	Ile	Phe	Val	Asn	Asp	Asp	Asp	Lys	Leu	Ala	
1900					1905					1910					
ctg	cag	aca	gcc	gcc	ccc	ctt	gta	acc	aac	gct	ggc	acc	ctt	cgc	26924
Leu	Gln	Thr	Ala	Ala	Pro	Leu	Val	Thr	Asn	Ala	Gly	Thr	Leu	Arg	
1915					1920					1925					
tta	cag	agc	gct	gcc	cct	tta	gga	ttg	gtt	gaa	aat	act	ctt	aaa	26969
Leu	Gln	Ser	Ala	Ala	Pro	Leu	Gly	Leu	Val	Glu	Asn	Thr	Leu	Lys	
1930					1935					1940					
ctg	ctg	ttt	tct	aaa	ccc	ttg	tat	ttg	caa	aat	gat	ttt	ctt	gca	27014
Leu	Leu	Phe	Ser	Lys	Pro	Leu	Tyr	Leu	Gln	Asn	Asp	Phe	Leu	Ala	
1945					1950					1955					
tta	gcc	att	gaa	cgc	ccc	ctg	gct	gta	gca	gcc	gca	ggg	act	ctg	27059
Leu	Ala	Ile	Glu	Arg	Pro	Leu	Ala	Val	Ala	Ala	Ala	Gly	Thr	Leu	
1960					1965					1970					
acc	cta	caa	ctt	act	cct	cca	tta	aag	act	aac	gat	gac	ggg	cta	27104
Thr	Leu	Gln	Leu	Thr	Pro	Pro	Leu	Lys	Thr	Asn	Asp	Asp	Gly	Leu	
1975					1980					1985					
aca	cta	tcc	aca	gtc	gag	cca	tta	act	gta	aaa	aac	gga	aac	cta	27149
Thr	Leu	Ser	Thr	Val	Glu	Pro	Leu	Thr	Val	Lys	Asn	Gly	Asn	Leu	
1990					1995					2000					
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Gly	Leu	Gln	Ile	Ser	Arg	Pro	Leu	Val	Val	Gln	Asn	Asn	Gly	Leu	
2005					2010					2015					
tcg	ctt	gct	att	acc	ccc	ccg	ctg	cgt	ttg	ttt	aac	agc	gac	ccc	27239
Ser	Leu	Ala	Ile	Thr	Pro	Pro	Leu	Arg	Leu	Phe	Asn	Ser	Asp	Pro	
2020					2025					2030					
gtt	ctt	ggg	ttg	ggc	ttc	act	ttt	ccc	cta	gct	gtc	aca	aac	aac	27284
Val	Leu	Gly	Leu	Gly	Phe	Thr	Phe	Pro	Leu	Ala	Val	Thr	Asn	Asn	
2035					2040					2045					
ctc	ctc	tcc	tta	aac	atg	gga	gac	gga	gtt	aaa	ctt	acc	tat	aat	27329
Leu	Leu	Ser	Leu	Asn	Met	Gly	Asp	Gly	Val	Lys	Leu	Thr	Tyr	Asn	
2050					2055					2060					

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gog att gcc gta acg ctt act gcc gaa tta cct ttg caa tac act Ala Ile Ala Val Thr Leu Thr Ala Glu Leu Pro Leu Gln Tyr Thr 2080 2085 2090	27419
aac aaa ctt caa ctg aat att gga gct ggc ctt cgt tac aat gga Asn Lys Leu Gln Leu Asn Ile Gly Ala Gly Leu Arg Tyr Asn Gly 2095 2100 2105	27464
gcc agc aga aaa cta gat gta aac att aac caa aat aaa ggc tta Ala Ser Arg Lys Leu Asp Val Asn Ile Asn Gln Asn Lys Gly Leu 2110 2115 2120	27509
act tgg gac aac gat gca gtt att ccc aaa cta gga tgc ggc tta Thr Trp Asp Asn Asp Ala Val Ile Pro Lys Leu Gly Ser Gly Leu 2125 2130 2135	27554
caa ttt gac cct aat ggc aac atc gct gtt atc cct gaa acc gtg Gln Phe Asp Pro Asn Gly Asn Ile Ala Val Ile Pro Glu Thr Val 2140 2145 2150	27599
aag ccg caa acg tta tgg acg act gca gat ccc tgc cct aac tgc Lys Pro Gln Thr Leu Trp Thr Thr Ala Asp Pro Ser Pro Asn Cys 2155 2160 2165	27644
tca gtg tac cag gac ttg gat gcc agg ctg tgg ctc gct ctt gtt Ser Val Tyr Gln Asp Leu Asp Ala Arg Leu Trp Leu Ala Leu Val 2170 2175 2180	27689
aaa agt ggc gac atg gtg cat gga agc att gcc cta aaa gcc cta Lys Ser Gly Asp Met Val His Gly Ser Ile Ala Leu Lys Ala Leu 2185 2190 2195	27734
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ata tat ttt tac agc aac gga gtc agg cgt acc aac tat cca acg Ile Tyr Phe Tyr Ser Asn Gly Val Arg Arg Thr Asn Tyr Pro Thr 2215 2220 2225	27824
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cga cag ggg caa tct gct aac act aat gtg acc aat gcc act gaa Arg Gln Gly Gln Ser Ala Asn Thr Asn Val Thr Asn Ala Thr Glu 2245 2250 2255	27914
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Gly	Tyr	Ser	Leu	Lys	Phe	Thr	Trp	Arg	Val	Val	Ala	Asn	Gln	Ala	
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Phe	Asp	Ile	Pro	Cys	Cys	Ser	Phe	Ser	Tyr	Ile	Thr	Glu			
2320					2325					2330					
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 <211> 505
 <212> PRT
 <213> simian adenovirus SV-25

<400> 30

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Asn Ser Ile Arg Tyr Ser Glu Leu Ala Pro Leu Tyr Asp Thr Thr Lys
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Val 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
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Phe Thr Pro Thr Glu Ala Gly Thr Gln Thr Ile Asn Phe Asp Glu Arg
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Ser Arg Trp Gly Gly Gln Leu Lys Thr Ile Leu His Thr Asn Met Pro
          115          120          125

Asn Ile Asn Glu Phe Met Ser Thr Asn Lys Phe Arg Ala Lys Leu Met
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Val Glu Lys Ser Asn Ala Glu Thr Arg Gln Pro Arg Tyr Glu Trp Phe
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Glu Phe Thr Ile Pro Glu Gly Asn Tyr Ser Glu Thr Met Thr Ile Asp
          165          170          175

Leu Met Asn Asn Ala Ile Val Asp Asn Tyr Leu Gln Val Gly Arg Gln
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Asn Gly Val Leu Glu Ser Asp Ile Gly Val Lys Phe Asp Thr Arg Asn
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Phe Arg Leu Gly Trp Asp Pro Val Thr Lys Leu Val Met Pro Gly Val
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Tyr Thr Asn Glu Ala Phe His Pro Asp Ile Val Leu Leu Pro Gly Cys
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Gly Val Asp Phe Thr Gln Ser Arg Leu Ser Asn Leu Leu Gly Ile Arg
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 Phe Ala Val Ala Pro Gln Asp Leu Glu Ile Val Pro Leu Thr Lys Asp
 305 310 315 320
 Ser Lys Asp Arg Ser Tyr Asn Ile Ile Asn Asn Thr Thr Asp Thr Leu
 325 330 335
 Tyr Arg Ser Trp Phe Leu Ala Tyr Asn Tyr Gly Asp Pro Glu Lys Gly
 340 345 350
 Val Arg Ser Trp Thr Ile Leu Thr Thr Thr Asp Val Thr Cys Gly Ser
 355 360 365
 Gln Gln Val Tyr Trp Ser Leu Pro Asp Met Met Gln Asp Pro Val Thr
 370 375 380
 Phe Arg Pro Ser Thr Gln Val Ser Asn Phe Pro Val Val Gly Thr Glu
 385 390 395 400
 Leu Leu Pro Val His Ala Lys Ser Phe Tyr Asn Glu Gln Ala Val Tyr
 405 410 415
 Ser Gln Leu Ile Arg Gln Ser Thr Ala Leu Thr His Val Phe Asn Arg
 420 425 430
 Phe Pro Glu Asn Gln Ile Leu Val Arg Pro Pro Ala Pro Thr Ile Thr
 435 440 445
 Thr Val Ser Glu Asn Val Pro Ala Leu Thr Asp His Gly Thr Leu Pro
 450 455 460
 Leu Arg Ser Ser Ile Ser Gly Val Gln Arg Val Thr Ile Thr Asp Ala
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 Pro Lys Val Leu Ser Ser Arg Thr Phe
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 <213> simian adenovirus SV-25
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 Thr Leu Arg Phe Val Pro Val Asp Arg Glu Asp Thr Ala 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 Pro Ser Glu Trp Thr Asp Thr Ser Asp Asn Lys Leu Lys
 130 135 140
 Ala Tyr Ala Gln Ala Pro Tyr Gln Ser Gln Gly Leu Thr Lys Asp Gly
 145 150 155 160
 Ile Gln Val Gly Leu Val Val Thr Glu Ser Gly Gln Thr Pro Gln Tyr
 165 170 175
 Ala Asn Lys Val Tyr Gln Pro Glu Pro Gln Ile Gly Glu Asn Gln Trp
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 Asn Leu Glu Gln Glu Asp Lys Ala Ala Gly Arg Val Leu Lys Lys Asp
 195 200 205
 Thr Pro Met Phe Pro Cys Tyr Gly Ser Tyr Ala Arg Pro Thr Asn Glu
 210 215 220
 Gln Gly Gly Gln Ala Lys Asn Gln Glu Val Asp Leu Gln Phe Phe Ala
 225 230 235 240
 Thr Pro Gly Asp Thr Gln Asn Thr Ala Lys Val Val Leu Tyr Ala Glu
 245 250 255
 Asn Val Asn Leu Glu Thr Pro Asp Thr His Leu Val Phe Lys Pro Asp
 260 265 270
 Asp Asp Ser Thr Ser Ser Lys Leu Leu Leu Gly Gln Gln Ala Ala Pro
 275 280 285
 Asn Arg Pro Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly Leu Met
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Tyr Tyr Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser
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Gln Leu Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser
325 330 335
Tyr Gln Leu Met Leu Asp Ala Leu Gly Asp Arg Ser Arg Tyr Phe Ser
340 345 350
Met Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile
355 360 365
Glu Asn His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu
370 375 380
Gly Gly Met Val Val Thr Asp Asn Tyr Asn Ser Val Thr Pro Gln Asn
385 390 395 400
Gly Gly Ser Gly Asn Thr Trp Gln Ala Asp Asn Thr Thr Phe Ser Gln
405 410 415
Arg Gly Ala Gln Ile Gly Ser Gly Asn Met Phe Ala Leu Glu Ile Asn
420 425 430
Leu Gln Ala Asn Leu Trp Arg Gly Phe Leu Tyr Ser Asn Ile Gly Leu
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Tyr Leu Pro Asp Ser Leu Lys Ile Thr Pro Asp Asn Ile Thr Leu Pro
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Glu Asn Lys Asn Thr Tyr Gln Tyr Met Asn Gly Arg Val Thr Pro Pro
465 470 475 480
Gly Leu Ile Asp Thr Tyr Val Asn Val Gly Ala Arg Trp Ser Pro Asp
485 490 495
Val Met Asp Ser Ile Asn Pro Phe Asn His His Arg Asn Ala Gly Leu
500 505 510
Arg Tyr Arg Ser Met Leu Leu Gly Asn Gly Arg Tyr Val Pro Phe His
515 520 525
Ile Gln Val Pro Gln Lys Phe Phe Ala Ile Lys Asn Leu Leu Leu Leu
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Pro Gly Ser Tyr Thr Tyr Glu Trp Asn Phe Arg Lys Asp Val Asn Met
545 550 555 560
Ile Leu Gln Ser Ser Leu Gly Asn Asp Leu Arg Val Asp Gly Ala Ser
565 570 575
Ile Arg Phe Asp Ser Ile Asn Leu Tyr Ala Asn Phe Phe Pro Met Ala
580 585 590
His Asn Thr Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn
595 600 605

Asp Gln Ser Phe Asn Asp Tyr Leu Cys Ala Ala Asn Met Leu Tyr Pro
 610 615 620
 Ile Pro Ala Asn Ala Thr Ser Val Pro Ile Ser Ile Pro Ser Arg Asn
 625 630 635 640
 Trp Ala Ala Phe Arg Gly Trp Ser Phe Thr Arg Leu Lys Thr Lys Glu
 645 650 655
 Thr Pro Ser Leu Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly
 660 665 670
 Ser Ile Pro Tyr Leu Asp Gly Thr Phe Tyr Leu Asn His Thr Phe Lys
 675 680 685
 Lys Val Ser Ile Met Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp
 690 695 700
 Arg Leu Leu Thr Pro Asn Glu Phe Glu Ile Lys Arg Ser Val Asp Gly
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 Glu Gly Tyr Asn Val Ala Gln Ser Asn Met Thr Lys Asp Trp Phe Leu
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 Ile Gln Met Leu Ser His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val
 740 745 750
 Pro Glu Asn Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln
 755 760 765
 Pro Met Ser Arg Gln Val Val Asp Thr Val Thr Tyr Thr Asp Tyr Lys
 770 775 780
 Asp Val Lys Leu Pro Tyr Gln His Asn Asn Ser Gly Phe Val Gly Tyr
 785 790 795 800
 Met Gly Pro Thr Met Arg Glu Gly Gln Ala Tyr Pro Ala Asn Tyr Pro
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 Tyr Pro Leu Ile Gly Glu Thr Ala Val Pro Ser Leu Thr Gln Lys Lys
 820 825 830
 Phe Leu Cys Asp Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe
 835 840 845
 Met Ser Met Gly Ser Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala
 850 855 860
 Asn Ser Ala His Ala Leu Asp Met Thr Phe Glu Val Asp Pro Met Asp
 865 870 875 880
 Glu Pro Thr Leu Leu Tyr Val Leu Phe Glu Val Phe Asp Val Val Arg
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Pro Phe Ser Ala Gly Asn Ala Thr Thr
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 <212> PRT
 <213> simian adenovirus SV-25

<400> 32

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 Ile Glu Lys Gln Leu Ala Leu Ser Ile Gly Lys Gly Leu Thr Ile Ser
 50 55 60
 Ala Thr Gly Gln Leu Glu Ser Thr Ala Ser Val Gln Asp Ser Ala Thr
 65 70 75 80
 Pro Pro Leu Arg Gly Ile Ser Pro Leu Lys Leu Thr Asp Asn Gly Leu
 85 90 95
 Thr Leu Ser Tyr Ser Asp Pro Leu Arg Val Val Gly Asp Gln Leu Thr
 100 105 110
 Phe Asn Phe Thr Ser Pro Leu Arg Tyr Glu Asn Gly Ser Leu Thr Phe
 115 120 125
 Asn Tyr Thr Ser Pro Met Thr Leu Ile Asn Asn Ser Leu Ala Ile Asn
 130 135 140
 Val Asn Thr Ser Lys Gly Leu Ser Ser Asp Asn Gly Thr Leu Ala Val
 145 150 155 160
 Asn Val Thr Pro Asp Phe Arg Phe Asn Ser Ser Gly Ala Leu Thr Phe
 165 170 175
 Gly Ile Gln Ser Leu Trp Thr Phe Pro Thr Lys Thr Pro Asn Cys Thr
 180 185 190
 Val Phe Thr Glu Ser Asp Ser Leu Leu Ser Leu Cys Leu Thr Lys Cys
 195 200 205
 Gly Ala His Val Leu Gly Ser Val Ser Leu Ser Gly Val Ala Gly Thr
 210 215 220
 Met Leu Lys Met Thr His Thr Ser Val Thr Val Gln Phe Ser Phe Asp
 225 230 235 240

Asp Ser Gly Lys Leu Ile Phe Ser Pro Leu Ala Asn Asn Thr Trp Gly
 245 250 255
 Val Arg Gln Ser Glu Ser Pro Leu Pro Asn Pro Ser Phe Asn Ala Leu
 260 265 270
 Thr Phe Met Pro Asn Ser Thr Ile Tyr Ser Arg Gly Ala Ser Asn Glu
 275 280 285
 Pro Gln Asn Asn Tyr Tyr Val Gln Thr Tyr Leu Arg Gly Asn Val Arg
 290 295 300
 Lys Pro Ile Leu Leu Thr Val Thr Tyr Asn Ser Val Asn Ser Gly Tyr
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 Ser Leu Thr Phe Lys Trp Asp Ala Val Ala Asn Glu Lys Phe Ala Thr
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 Pro Thr Ser Ser Phe Cys Tyr Val Ala Glu Gln
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<210> 33
 <211> 559
 <212> PRT
 <213> simian adenovirus SV-25

<400> 33

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 35 40 45
 Tyr Arg Asp Pro Ile Thr Thr Gln Asn Gly Ser Leu Thr Leu Lys Leu
 50 55 60
 Gly Asn Gly Leu Thr Leu Asn Asn Gln Gly Gln Leu Thr Ser Thr Ala
 65 70 75 80
 Gly Glu Val Glu Pro Pro Leu Thr Asn Ala Asn Asn Lys Leu Ala Leu
 85 90 95
 Ala Tyr Ser Glu Pro Leu Ala Val Lys Ser Asn Arg Leu Thr Leu Ser
 100 105 110
 His Thr Ala Pro Leu Val Ile Ala Asn Asn Ser Leu Ala Leu Gln Val
 115 120 125
 Ser Glu Pro Ile Phe Val Asn Asp Asp Asp Lys Leu Ala Leu Gln Thr
 130 135 140

Ala Ala Pro Leu Val Thr Asn Ala Gly Thr Leu Arg Leu Gln Ser Ala
 145 150 155 160
 Ala Pro Leu Gly Leu Val Glu Asn Thr Leu Lys Leu Leu Phe Ser Lys
 165 170 175
 Pro Leu Tyr Leu Gln Asn Asp Phe Leu Ala Leu Ala Ile Glu Arg Pro
 180 185 190
 Leu Ala Val Ala Ala Ala Gly Thr Leu Thr Leu Gln Leu Thr Pro Pro
 195 200 205
 Leu Lys Thr Asn Asp Asp Gly Leu Thr Leu Ser Thr Val Glu Pro Leu
 210 215 220
 Thr Val Lys Asn Gly Asn Leu Gly Leu Gln Ile Ser Arg Pro Leu Val
 225 230 235 240
 Val Gln Asn Asn Gly Leu Ser Leu Ala Ile Thr Pro Pro Leu Arg Leu
 245 250 255
 Phe Asn Ser Asp Pro Val Leu Gly Leu Gly Phe Thr Phe Pro Leu Ala
 260 265 270
 Val Thr Asn Asn Leu Leu Ser Leu Asn Met Gly Asp Gly Val Lys Leu
 275 280 285
 Thr Tyr Asn Lys Leu Thr Ala Asn Leu Gly Arg Asp Leu Gln Phe Glu
 290 295 300
 Asn Gly Ala Ile Ala Val Thr Leu Thr Ala Glu Leu Pro Leu Gln Tyr
 305 310 315 320
 Thr Asn Lys Leu Gln Leu Asn Ile Gly Ala Gly Leu Arg Tyr Asn Gly
 325 330 335
 Ala Ser Arg Lys Leu Asp Val Asn Ile Asn Gln Asn Lys Gly Leu Thr
 340 345 350
 Trp Asp Asn Asp Ala Val Ile Pro Lys Leu Gly Ser Gly Leu Gln Phe
 355 360 365
 Asp Pro Asn Gly Asn Ile Ala Val Ile Pro Glu Thr Val Lys Pro Gln
 370 375 380
 Thr Leu Trp Thr Thr Ala Asp Pro Ser Pro Asn Cys Ser Val Tyr Gln
 385 390 395 400
 Asp Leu Asp Ala Arg Leu Trp Leu Ala Leu Val Lys Ser Gly Asp Met
 405 410 415
 Val His Gly Ser Ile Ala Leu Lys Ala Leu Lys Gly Thr Leu Leu Asn
 420 425 430
 Pro Thr Ala Ser Tyr Ile Ser Ile Val Ile Tyr Phe Tyr Ser Asn Gly
 435 440 445

Val Arg Arg Thr Asn Tyr Pro Thr Phe Asp Asn Glu Gly Thr Leu Ala
450 455 460

Asn Ser Ala Thr Trp Gly Tyr Arg Gln Gly Gln Ser Ala Asn Thr Asn
465 470 475 480

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

Asn Lys Gly Asp Asn Ile Gln Asn Gln Ser Phe Ser Tyr Thr Cys Ile
500 505 510

Lys Gly Asp Phe Ala Met Pro Val Pro Phe Arg Val Thr Tyr Asn His
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Ala Leu Glu Gly Tyr Ser Leu Lys Phe Thr Trp Arg Val Val Ala Asn
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Gln Ala Phe Asp Ile Pro Cys Cys Ser Phe Ser Tyr Ile Thr Glu
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<212> DNA
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<400> 34

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Asn Thr Ala Ser Thr Leu Glu	Ala Met Leu Arg Asn	Asp Thr Asn	
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Asp Gln Ser Phe Asn Asp Tyr	Leu Ser Ala Ala Asn	Met Leu Tyr	
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ccc att ccg gcc aac gcc acc	aac gtt ccc att tcc	att ccc tcc	19689
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Ser Trp Pro Gly Asn Asp Arg	Leu Leu Thr Pro Asn	Glu Phe Glu	
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Arg Gln	His Asn Asn Ser Gly	Phe Val Gly Tyr Met	Gly Pro Thr			
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Met Arg	Glu Gly Gln Pro Tyr	Pro Ala Asn Tyr Pro	Tyr Pro Leu			
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Ile Gly	Ala Thr Ala Val Pro	Ala Ile Thr Gln Lys	Lys Phe Leu			
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Cys Asp	Arg Val Met Trp Arg	Ile Pro Phe Ser Ser	Asn Phe Met			
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Ser Met	Gly Ala Leu Thr Asp	Leu Gly Gln Asn Met	Leu Tyr Ala			
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Asn Ser	Ala His Ala Leu Asp	Met Thr Phe Glu Val	Asp Pro Met			
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 Leu Ile Arg Gln Thr Thr Ala Leu Thr His Val Phe Asn Arg Phe Pro
 420 425 430
 Glu Asn Gln Ile Leu Val Arg Pro Pro Ala Pro Thr Ile Thr Thr Val
 435 440 445
 Ser Glu Asn Val Pro Ala Leu Thr Asp His Gly Thr Leu Pro Leu Gln
 450 455 460

Asn Ser Ile Arg Gly Val Gln Arg Val Thr Ile Thr Asp Ala Arg Arg
 465 470 475 480

Arg Thr Cys Pro Tyr Val Tyr Lys Ala Leu Gly Ile Val Ala Pro Arg
 485 490 495

Val Leu Ser Ser Arg Thr Phe
 500

<210> 36
 <211> 917
 <212> PRT
 <213> simian adenovirus SV-39

<400> 36

Met Ala Thr Pro Ser Met Met Pro Gln Trp Ser 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 Glu 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 Ile Arg Phe Val Pro Val Asp Lys Glu Asp Thr Ala Tyr Ser Tyr
 65 70 75 80

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

Val Cys Phe Ala Gln Ala Ala Phe Ile Gly Gln Ser Ile Thr Lys Asp
 145 150 155 160

Gly Val Gln Ile Gln Asn Ser Glu Asn Gln Gln Ala Ala Ala Asp Lys
 165 170 175

Thr Tyr Gln Pro Glu Pro Gln Ile Gly Val Ser Thr Trp Asp Thr Asn
 180 185 190

Val Thr Ser Asn Ala Ala Gly Arg Val Leu Lys Ala Thr Thr Pro Met
 195 200 205

Leu Pro Cys Tyr Gly Ser Tyr Ala Asn Pro Thr Asn Pro Asn Gly Gly
 210 215 220
 Gln Ala Lys Thr Glu Gly Asp Ile Ser Leu Asn Phe Phe Thr Thr Thr
 225 230 235 240
 Ala Ala Ala Asp Asn Asn Pro Lys Val Val Leu Tyr Ser Glu Asp Val
 245 250 255
 Asn Leu Gln Ala Pro Asp Thr His Leu Val Tyr Lys Pro Thr Val Gly
 260 265 270
 Glu Asn Val Ile Ala Ala Glu Ala Leu Leu Thr Gln Gln Ala Cys Pro
 275 280 285
 Asn Arg Ala Asn Tyr Ile Gly Phe Arg Asp Asn Phe Ile Gly Leu Met
 290 295 300
 Tyr Tyr Asn Ser Thr Gly Asn Met Gly Val Leu Ala Gly Gln Ala Ser
 305 310 315 320
 Gln Leu Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser
 325 330 335
 Tyr Gln Leu Met Leu Asp Ala Leu Gly Asp Arg Thr Arg Tyr Phe Ser
 340 345 350
 Met Trp Asn Gln Ala Val Asp Ser Tyr Asp Pro Asp Val Arg Ile Ile
 355 360 365
 Glu Asn His Gly Val Glu Asp Glu Leu Pro Asn Tyr Cys Phe Pro Leu
 370 375 380
 Pro Gly Met Gly Ile Phe Asn Ser Tyr Lys Gly Val Lys Pro Gln Asn
 385 390 395 400
 Gly Gly Asn Gly Asn Trp Glu Ala Asn Gly Asp Leu Ser Asn Ala Asn
 405 410 415
 Glu Ile Ala Leu Gly Asn Ile Phe Ala Met Glu Ile Asn Leu His Ala
 420 425 430
 Asn Leu Trp Arg Ser Phe Leu Tyr Ser Asn Val Ala Leu Tyr Leu Pro
 435 440 445
 Asp Ser Tyr Lys Phe Thr Pro Ala Asn Ile Thr Leu Pro Ala Asn Gln
 450 455 460
 Asn Thr Tyr Glu Tyr Ile Asn Gly Arg Val Thr Ser Pro Thr Leu Val
 465 470 475 480
 Asp Thr Phe Val Asn Ile Gly Ala Arg Trp Ser Pro Asp Pro Met Asp
 485 490 495
 Asn Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu Arg Tyr Arg
 500 505 510

Ser Met Leu Leu Gly Asn Gly Arg Val Val Pro Phe His Ile Gln Val
 515 520 525
 Pro Gln Lys Phe Phe Ala Ile Lys Asn Leu Leu Leu Leu Pro Gly Ser
 530 535 540
 Tyr Thr Tyr Glu Trp Ser Phe Arg Lys Asp Val Asn Met Ile Leu Gln
 545 550 555 560
 Ser Thr Leu Gly Asn Asp Leu Arg Val Asp Gly Ala Ser Val Arg Ile
 565 570 575
 Asp Ser Val Asn Leu Tyr Ala Asn Phe Phe Pro Met Ala His Asn Thr
 580 585 590
 Ala Ser Thr Leu Glu Ala Met Leu Arg Asn Asp Thr Asn Asp Gln Ser
 595 600 605
 Phe Asn Asp Tyr Leu Ser Ala Ala Asn Met Leu Tyr Pro Ile Pro Ala
 610 615 620
 Asn Ala Thr Asn Val Pro Ile Ser Ile Pro Ser Arg Asn Trp Ala Ala
 625 630 635 640
 Phe Arg Gly Trp Ser Phe Thr Arg Leu Lys Ala Lys Glu Thr Pro Ser
 645 650 655
 Leu Gly Ser Gly Phe Asp Pro Tyr Phe Val Tyr Ser Gly Thr Ile Pro
 660 665 670
 Tyr Leu Asp Gly Ser Phe Tyr Leu Asn His Thr Phe Lys Arg Leu Ser
 675 680 685
 Ile Met Phe Asp Ser Ser Val Ser Trp Pro Gly Asn Asp Arg Leu Leu
 690 695 700
 Thr Pro Asn Glu Phe Glu Ile Lys Arg Ile Val Asp Gly Glu Gly Tyr
 705 710 715 720
 Asn Val Ala Gln Ser Asn Met Thr Lys Asp Trp Phe Leu Ile Gln Met
 725 730 735
 Leu Ser His Tyr Asn Ile Gly Tyr Gln Gly Phe Tyr Val Pro Glu Gly
 740 745 750
 Tyr Lys Asp Arg Met Tyr Ser Phe Phe Arg Asn Phe Gln Pro Met Ser
 755 760 765
 Arg Gln Val Pro Asp Pro Thr Ala Ala Gly Tyr Gln Ala Val Pro Leu
 770 775 780
 Pro Arg Gln His Asn Asn Ser Gly Phe Val Gly Tyr Met Gly Pro Thr
 785 790 795 800
 Met Arg Glu Gly Gln Pro Tyr Pro Ala Asn Tyr Pro Tyr Pro Leu Ile
 805 810 815

Gly Ala Thr Ala Val Pro Ala Ile Thr Gln Lys Lys Phe Leu Cys Asp
 820 825 830
 Arg Val Met Trp Arg Ile Pro Phe Ser Ser Asn Phe Met Ser Met Gly
 835 840 845
 Ala Leu Thr Asp Leu Gly Gln Asn Met Leu Tyr Ala Asn Ser Ala His
 850 855 860
 Ala Leu Asp Met Thr Phe Glu Val Asp Pro Met Asn Glu Pro Thr Leu
 865 870 875 880
 Leu Tyr Met Leu Phe Glu Val Phe Asp Val Val Arg Val His Gln Pro
 885 890 895
 His Arg Gly Ile Ile Glu Ala Val Tyr Leu Arg Thr Pro Phe Ser Ala
 900 905 910
 Gly Asn Ala Thr Thr
 915

 <210> 37
 <211> 533
 <212> PRT
 <213> simian adenovirus SV-39

 <400> 37

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

Leu Gln Ala Thr Leu Pro Leu Ser Ile Ser Asn Asn Thr Ile Ser Leu
 145 150 155 160
 Asn Val Gly Thr Gly Leu Thr Ile Asn Gly Asn Val Leu Gln Ala Val
 165 170 175
 Pro Leu Asn Ala Leu Ser Pro Leu Thr Ile Ser Asn Asn Asn Ile Ser
 180 185 190
 Leu Arg Tyr Gly Ser Ser Leu Thr Val Leu Asn Asn Glu Leu Gln Ser
 195 200 205
 Asn Leu Thr Val His Ser Pro Leu Lys Leu Asn Ser Asn Asn Ser Ile
 210 215 220
 Ser Leu Asn Thr Leu Ser Pro Phe Arg Ile Glu Asn Gly Phe Leu Thr
 225 230 235 240
 Leu Tyr Leu Gly Thr Lys Ser Gly Leu Leu Val Gln Asn Ser Gly Leu
 245 250 255
 Lys Val Gln Ala Gly Tyr Gly Leu Gln Val Thr Asp Thr Asn Ala Leu
 260 265 270
 Thr Leu Arg Tyr Leu Ala Pro Leu Thr Ile Pro Asp Ser Gly Ser Glu
 275 280 285
 Gln Gly Ile Leu Lys Val Asn Thr Gly Gln Gly Leu Ser Val Asn Gln
 290 295 300
 Ala Gly Ala Leu Glu Thr Ser Leu Gly Gly Gly Leu Lys Tyr Ala Asp
 305 310 315 320
 Asn Lys Ile Thr Phe Asp Thr Gly Asn Gly Leu Thr Leu Ser Glu Asn
 325 330 335
 Lys Leu Ala Val Ala Ala Gly Ser Gly Leu Thr Phe Arg Asp Gly Ala
 340 345 350
 Leu Val Ala Thr Gly Thr Ala Phe Thr Gln Thr Leu Trp Thr Thr Ala
 355 360 365
 Asp Pro Ser Pro Asn Cys Thr Ile Ile Gln Asp Arg Asp Thr Lys Phe
 370 375 380
 Thr Leu Ala Leu Thr Ile Ser Gly Ser Gln Val Leu Gly Thr Val Ser
 385 390 395 400
 Ile Ile Gly Val Lys Gly Pro Leu Ser Ser Ser Ile Pro Ser Ala Thr
 405 410 415
 Val Thr Val Gln Leu Asn Phe Asp Ser Asn Gly Ala Leu Leu Ser Ser
 420 425 430
 Ser Ser Leu Lys Gly Tyr Trp Gly Tyr Arg Gln Gly Pro Ser Ile Asp
 435 440 445

Pro Tyr Pro Ile Ile Asn Ala Leu Asn Phe Met Pro Asn Ser Leu Ala
450 455 460

Tyr Pro Pro Gly Gln Glu Ile Gln Ala Lys Cys Asn Met Tyr Val Ser
465 470 475 480

Thr Phe Leu Arg Gly Asn Pro Gln Arg Pro Ile Val Leu Asn Ile Thr
485 490 495

Phe Asn Asn Gln Thr Ser Gly Phe Ser Ile Arg Phe Thr Trp Thr Asn
500 505 510

Leu Thr Thr Gly Glu Ala Phe Ala Met Pro Pro Cys Thr Phe Ser Tyr
515 520 525

Ile Ala Glu Gln Gln
530

<210> 38
<211> 50
<212> DNA
<213> Artificial sequence

<220>
<223> oligomer SV25T

<400> 38
aattttaata cgtagcgcac tagtcgcgct aagcgcggat atcattttaa

50

<210> 39
<211> 49
<212> DNA
<213> Artificial sequence

<220>
<223> oligomer SV25B

<400> 39
tattttaaatg atatccgcgc ttaagcgcga ctagtcgcgct acgtattta

49