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Pro Lys Asn Met Ser Val Thr His Asp Met Met Leu Phe Lys Ala Ser
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<212> DNA
<213> Mycobacterium tuberculosis

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<210> 12
<211> 368
<212> PRT
<213> Mycobacterium tuberculosis

<400> 12

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Gly Ser Met Gln Leu Val Asp Arg Val Arg Gly Ala Val Thr Gly Met
35 40 45

Ser Arg Arg Leu Val Val Gly Ala Val Gly Ala Ala Leu Val Ser Gly
50 55 60

Leu Val Gly Ala Val Gly Gly Thr Ala Thr Ala Gly Ala Phe Ser Arg
65 70 75 80

Pro Gly Leu Pro Val Glu Tyr Leu Gln Val Pro Ser Pro Ser Met Gly
85 90 95

Arg Asp Ile Lys Val Gln Phe Gln Ser Gly Gly Ala Asn Ser Pro Ala
100 105 110

Leu Tyr Leu Leu Asp Gly Leu Arg Ala Gln Asp Asp Phe Ser Gly Trp
115 120 125

Asp Ile Asn Thr Pro Ala Phe Glu Trp Tyr Asp Gln Ser Gly Leu Ser
130 135 140

Val Val Met Pro Val Gly Gly Gln Ser Ser Phe Tyr Ser Asp Trp Tyr
145 150 155 160

Gln Pro Ala Cys Gly Lys Ala Gly Cys Gln Thr Tyr Lys Trp Glu Thr
165 170 175

Phe Leu Thr Ser Glu Leu Pro Gly Trp Leu Gln Ala Asn Arg His Val
180 185 190

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

Ala Leu Thr Leu Ala Ile Tyr His Pro Gln Gln Phe Val Tyr Ala Gly
210 215 220

Ala Met Ser Gly Leu Leu Asp Pro Ser Gln Ala Met Gly Pro Thr Leu

225 230 235 240

Ile Gly Leu Ala Met Gly Asp Ala Gly Gly Tyr Lys Ala Ser Asp Met
245 250 255

Trp Gly Pro Lys Glu Asp Pro Ala Trp Gln Arg Asn Asp Pro Leu Leu
260 265 270

Asn Val Gly Lys Leu Ile Ala Asn Asn Thr Arg Val Trp Val Tyr Cys
275 280 285

Gly Asn Gly Lys Leu Ser Asp Leu Gly Gly Asn Asn Leu Pro Ala Lys
290 295 300

Phe Leu Glu Gly Phe Val Arg Thr Ser Asn Ile Lys Phe Gln Asp Ala
305 310 315 320

Tyr Asn Ala Gly Gly Gly His Asn Gly Val Phe Asp Phe Pro Asp Ser
325 330 335

Gly Thr His Ser Trp Glu Tyr Trp Gly Ala Gln Leu Asn Ala Met Lys
340 345 350

Pro Asp Leu Gln Arg Gly Ser Ile Pro Asn Pro Leu Leu Gly Leu Asp
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<211> 2274
<212> DNA
<213> Unknown

<220>
<223> Influenza A virus nucleoprotein and matrix protein 1

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<221> misc_feature
<222> 1495..1515
<223> Linker

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<222> 1..1494
<223> Nucleoprotein sequence

<220>
<221> misc_feature
<222> 1516..2274
<223> Matrix protein 1 sequence

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atccagatgt gcaccgagct gaagctgtcc gactacgagg gccggctgat ccagaacagc 180

ctgaccatcg agaagatggt gctgtccgcc ttcgacgagc ggcggaacag atacctggaa 240

gagcacccca gcgccggcaa ggaccccaag aaaaccggcg gacccatcta ccggcgggtg 300

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<211> 757
<212> PRT
<213> Unknown

<220>
<223> Influenza A virus nucleoprotein and matrix protein 1

<400> 14

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Gly Asp Arg Gln Asn Ala Thr Glu Ile Arg Ala Ser Val Gly Lys Met
20 25 30

Ile Asp Gly Ile Gly Arg Phe Tyr Ile Gln Met Cys Thr Glu Leu Lys
35 40 45

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

Lys Met Val Leu Ser Ala Phe Asp Glu Arg Arg Asn Arg Tyr Leu Glu
65 70 75 80

Glu His Pro Ser Ala Gly Lys Asp Pro Lys Lys Thr Gly Gly Pro Ile
85 90 95

Tyr Arg Arg Val Asp Gly Lys Trp Met Arg Glu Leu Val Leu Tyr Asp
100 105 110

Lys Glu Glu Ile Arg Arg Ile Trp Arg Gln Ala Asn Asn Gly Glu Asp
115 120 125

Ala Thr Ala Gly Leu Thr His Met Met Ile Trp His Ser Asn Leu Asn
130 135 140

Asp Thr Thr Tyr Gln Arg Thr Arg Ala Leu Val Arg Thr Gly Met Asp
145 150 155 160

Pro Arg Met Cys Ser Leu Met Gln Gly Ser Thr Leu Pro Arg Arg Ser
165 170 175

Gly Ala Ala Gly Ala Ala Val Lys Gly Ile Gly Thr Met Val Met Glu
180 185 190

Leu Ile Arg Met Val Lys Arg Gly Ile Asn Asp Arg Asn Phe Trp Arg
195 200 205

Gly Glu Asn Gly Arg Lys Thr Arg Ser Ala Tyr Glu Arg Met Cys Asn
210 215 220

Ile Leu Lys Gly Lys Phe Gln Thr Ala Ala Gln Arg Ala Met Val Asp

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225                 230                 235                 240

Gln Val Arg Glu Ser Arg Asn Pro Gly Asn Ala Glu Ile Glu Asp Leu
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Ile Phe Leu Ala Arg Ser Ala Leu Ile Leu Arg Gly Ser Val Ala His
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Lys Ser Cys Leu Pro Ala Cys Val Tyr Gly Pro Ala Val Ser Ser Gly
        275                 280                 285

Tyr Asp Phe Glu Lys Glu Gly Tyr Ser Leu Val Gly Ile Asp Pro Phe
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Lys Leu Leu Gln Asn Ser Gln Val Tyr Ser Leu Ile Arg Pro Asn Glu
305                 310                 315                 320

Asn Pro Ala His Lys Ser Gln Leu Val Trp Met Ala Cys His Ser Ala
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Ala Phe Glu Asp Leu Arg Leu Leu Ser Phe Ile Arg Gly Thr Lys Val
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Ser Pro Arg Gly Lys Leu Ser Thr Arg Gly Val Gln Ile Ala Ser Asn
        355                 360                 365

Glu Asn Met Asp Asn Met Gly Ser Ser Thr Leu Glu Leu Arg Ser Gly
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Tyr Trp Ala Ile Arg Thr Arg Ser Gly Gly Asn Thr Asn Gln Gln Arg
385                 390                 395                 400

Ala Ser Ala Gly Gln Ile Ser Val Gln Pro Thr Phe Ser Val Gln Arg
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Asn Leu Pro Phe Glu Lys Ser Thr Val Met Ala Ala Phe Thr Gly Asn
            420                 425                 430

Thr Glu Gly Arg Thr Ser Asp Met Arg Ala Glu Ile Ile Arg Met Met
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Glu Gly Ala Lys Pro Glu Glu Val Ser Phe Arg Gly Arg Gly Val Phe
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Glu Leu Ser Asp Glu Lys Ala Thr Asn Pro Ile Val Pro Ser Phe Glu
465                 470                 475                 480

Met Ser Asn Glu Gly Ser Tyr Phe Phe Gly Asp Asn Ala Glu Glu Tyr
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Asp Asn Gly Gly Gly Pro Gly Gly Gly Met Ser Leu Leu Thr Glu Val
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Glu Thr Tyr Val Leu Ser Ile Val Pro Ser Gly Pro Leu Lys Ala Glu
515 520 525

Ile Ala Gln Arg Leu Glu Asp Val Phe Ala Gly Lys Asn Thr Asp Leu
530 535 540

Glu Ala Leu Met Glu Trp Leu Lys Thr Arg Pro Ile Leu Ser Pro Leu
545 550 555 560

Thr Lys Gly Ile Leu Gly Phe Val Phe Thr Leu Thr Val Pro Ser Glu
565 570 575

Arg Gly Leu Gln Arg Arg Arg Phe Val Gln Asn Ala Leu Asn Gly Asn
580 585 590

Gly Asp Pro Asn Asn Met Asp Lys Ala Val Lys Leu Tyr Arg Lys Leu
595 600 605

Lys Arg Glu Ile Thr Phe His Gly Ala Lys Glu Ile Ala Leu Ser Tyr
610 615 620

Ser Ala Gly Ala Leu Ala Ser Cys Met Gly Leu Ile Tyr Asn Arg Met
625 630 635 640

Gly Ala Val Thr Thr Glu Val Ala Phe Gly Leu Val Cys Ala Thr Cys
645 650 655

Glu Gln Ile Ala Asp Ser Gln His Arg Ser His Arg Gln Met Val Ala
660 665 670

Thr Thr Asn Pro Leu Ile Lys His Glu Asn Arg Met Val Leu Ala Ser
675 680 685

Thr Thr Ala Lys Ala Met Glu Gln Met Ala Gly Ser Ser Glu Gln Ala
690 695 700

Ala Glu Ala Met Glu Ile Ala Ser Gln Ala Arg Gln Met Val Gln Ala
705 710 715 720

Met Arg Thr Val Gly Thr His Pro Ser Ser Ser Thr Gly Leu Arg Asp
725 730 735

Asp Leu Leu Glu Asn Leu Gln Thr Tyr Gln Lys Arg Met Gly Val Gln
740 745 750

Met Gln Arg Phe Lys
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<211> 9
<212> PRT
<213> Artificial

<220>
<223> Polypeptide linker sequence

<400> 15

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<210> 16
<211> 2948
<212> DNA
<213> Chimpanzee adenovirus Ch68

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<211> 4707
<212> DNA
<213> Chimpanzee adenovirus C68

<400> 17
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cttcggatct tcagccagcg tccgatcctg gtcgagcgcg agcaaggaca gacccttctg 240

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gttgatccca ctactccacc tccacccacc acaactactc acaccacaca cacagatcaa 2460

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ctttaccgac aaaaatcaga cccactgctg aacctctatg tttaattttt tccagagtca 2700

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tgcctggtcg gagtcaaccc catcgtcatc acccagcagt ctggcgatac caaggggtgc 4620

atccactgct cctgcgactc ccccgactgc gtccacactc tgatcaagac cctctgcggc 4680

ctccgcgacc tcctccccat gaactaa 4707

<210> 18
<211> 933
<212> PRT
<213> Chimpanzee adenovirus C68

<400> 18

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 Asp Gly Glu Thr Ala
130 135 140

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

Thr 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 Ala 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
                325                 330                 335

Leu Asn Ala Val Val Asp Leu Gln Asp Arg Asn Thr Glu Leu Ser Tyr
            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
    370                 375                 380

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

Ala Val Gly Arg Thr Asp Thr Tyr Gln Gly Ile Lys Ala Asn Gly Thr
                405                 410                 415

Asp Gln Thr Thr Trp Thr Lys Asp Asp Ser Val Asn Asp Ala Asn Glu
            420                 425                 430

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

Leu Trp Arg Asn Phe Leu Tyr Ala Asn Val Ala Leu Tyr Leu Pro Asp
    450                 455                 460
```

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

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

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

Val Asn Pro Phe Asn His His Arg Asn Ala Gly Leu Arg Tyr Arg Ser
        515                 520                 525

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

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
                565                 570                 575

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

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

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

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

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 Lys 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 Thr 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
900 905 910

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

Gly Asn Ala Thr Thr
930

<210> 19
<211> 425
<212> PRT
<213> Chimpanzee adenovirus C68

<400> 19
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

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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 Phe Ser Asn Asn Thr
                85                  90                  95

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Tyr Thr Phe Ser Tyr Ile Ala Gln Glu
420 425

<210> 20
<211> 534
<212> PRT
<213> Chimpanzee adenovirus C68

<400> 20

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

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

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

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

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

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

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

Arg Trp Gly Gly Gln Leu Lys Thr Ile Met His Thr Asn Met Pro Asn

```
        115                 120                 125

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

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

Trp Thr Leu Leu Thr Thr Ser Asp Val Thr Cys Gly Val Glu Gln Val
```

385 390 395 400

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

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

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

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

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

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

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

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

Leu Ser Ser Arg Thr Phe
530

<210> 21
<211> 524
<212> PRT
<213> Rabies virus

<400> 21

Met Val Pro Gln Ala Leu Leu Phe Val Pro Leu Leu Val Phe Pro Leu
1 5 10 15

Cys Phe Gly Lys Phe Pro Ile Tyr Thr Ile Pro Asp Lys Leu Gly Pro
20 25 30

Trp Ser Pro Ile Asp Ile His His Leu Ser Cys Pro Asn Asn Leu Val
35 40 45

Val Glu Asp Glu Gly Cys Thr Asn Leu Ser Gly Phe Ser Tyr Met Glu
50 55 60

Leu Lys Val Gly Tyr Ile Leu Ala Ile Lys Met Asn Gly Phe Thr Cys
65 70 75 80

Thr Gly Val Val Thr Glu Ala Glu Thr Tyr Thr Asn Phe Val Gly Tyr
85 90 95

```
Val Thr Thr Thr Phe Lys Arg Lys His Phe Arg Pro Thr Pro Asp Ala
            100                 105                 110

Cys Arg Ala Ala Tyr Asn Trp Lys Met Ala Gly Asp Pro Arg Tyr Glu
        115                 120                 125

Glu Ser Leu His Asn Pro Tyr Pro Asp Tyr Arg Trp Leu Arg Thr Val
    130                 135                 140

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

Leu Asp Pro Tyr Asp Arg Ser Leu His Ser Arg Val Phe Pro Ser Gly
                165                 170                 175

Lys Cys Ser Gly Val Ala Val Ser Ser Thr Tyr Cys Ser Thr Asn His
            180                 185                 190

Asp Tyr Thr Ile Trp Met Pro Glu Asn Pro Arg Leu Gly Met Ser Cys
        195                 200                 205

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

Thr Cys Gly Phe Val Asp Glu Arg Gly Leu Tyr Lys Ser Leu Lys Gly
225                 230                 235                 240

Ala Cys Lys Leu Lys Leu Cys Gly Val Leu Gly Leu Arg Leu Met Asp
                245                 250                 255

Gly Thr Trp Val Ala Met Gln Thr Ser Asn Glu Thr Lys Trp Cys Pro
            260                 265                 270

Pro Asp Gln Leu Val Asn Leu His Asp Phe Arg Ser Asp Glu Ile Glu
        275                 280                 285

His Leu Val Val Glu Glu Leu Val Arg Lys Arg Glu Glu Cys Leu Asp
    290                 295                 300

Ala Leu Glu Ser Ile Met Thr Thr Lys Ser Val Ser Phe Arg Arg Leu
305                 310                 315                 320

Ser His Leu Arg Lys Leu Val Pro Gly Phe Gly Lys Ala Tyr Thr Ile
                325                 330                 335

Phe Asn Lys Thr Leu Met Glu Ala Asp Ala His Tyr Lys Ser Val Arg
            340                 345                 350

Thr Trp Asn Glu Ile Leu Pro Ser Lys Gly Cys Leu Arg Val Gly Gly
        355                 360                 365
```

```
Arg Cys His Pro His Val Asn Gly Val Phe Phe Asn Gly Ile Ile Leu
    370                 375                 380

Gly Pro Asp Gly Asn Val Leu Ile Pro Glu Met Gln Ser Ser Leu Leu
385                 390                 395                 400

Gln Gln His Met Glu Leu Leu Glu Ser Ser Val Ile Pro Leu Val His
                405                 410                 415

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

Asp Phe Val Glu Val His Leu Pro Asp Val His Asn Gln Val Ser Gly
        435                 440                 445

Val Asp Leu Gly Leu Pro Asn Trp Gly Lys Tyr Val Leu Leu Ser Ala
    450                 455                 460

Gly Ala Leu Thr Ala Leu Met Leu Ile Ile Phe Leu Met Thr Cys Cys
465                 470                 475                 480

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

Gly Arg Glu Val Ser Val Thr Pro Gln Ser Gly Lys Ile Ile Ser Ser
            500                 505                 510

Trp Glu Ser His Lys Ser Gly Gly Glu Thr Arg Leu
        515                 520
```