Figure1A

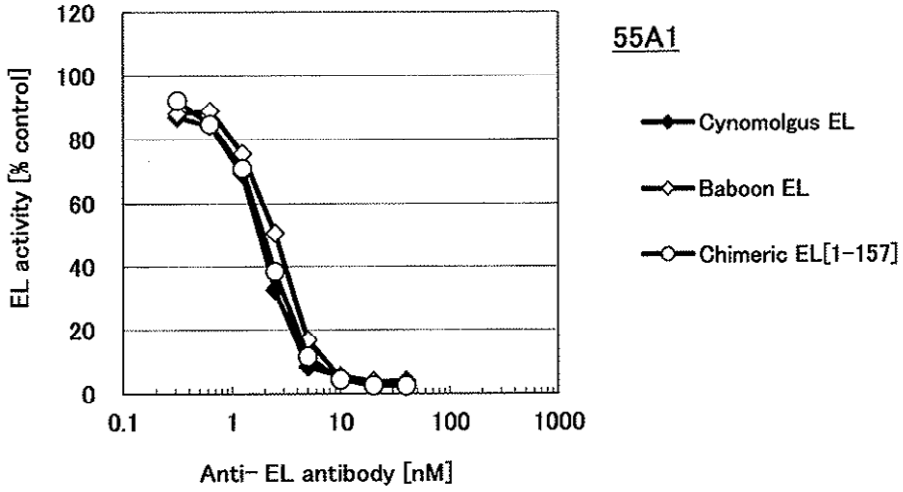



Figure1B

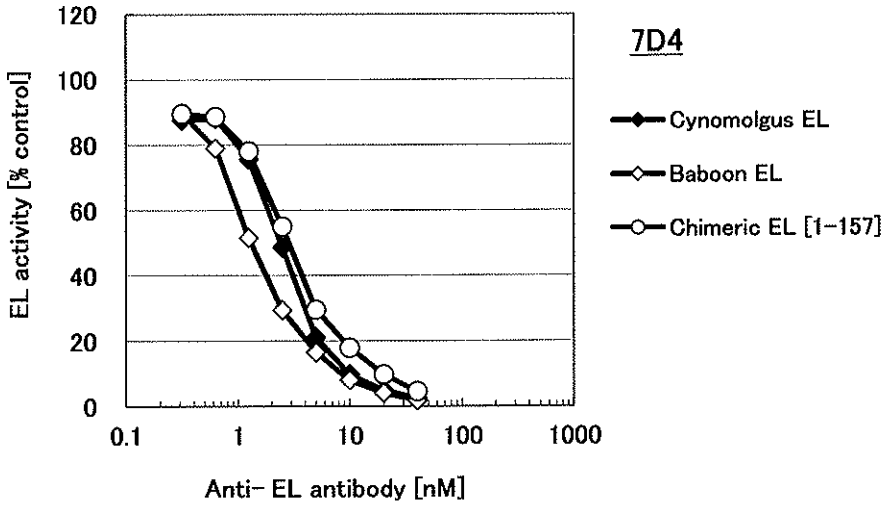



Figure1C

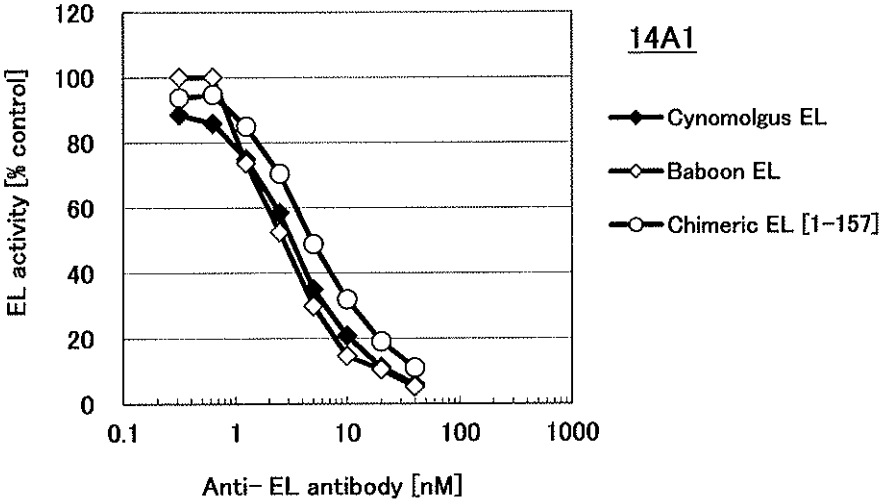


Figure1D

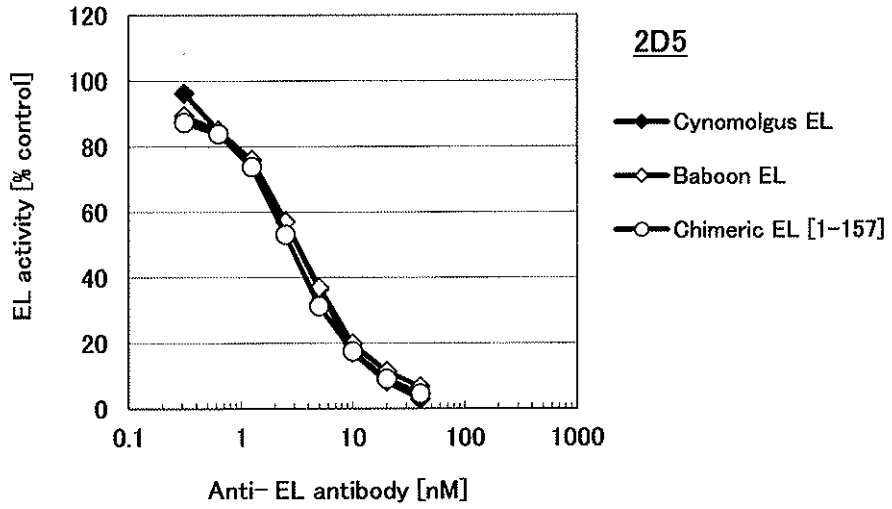



Figure1E

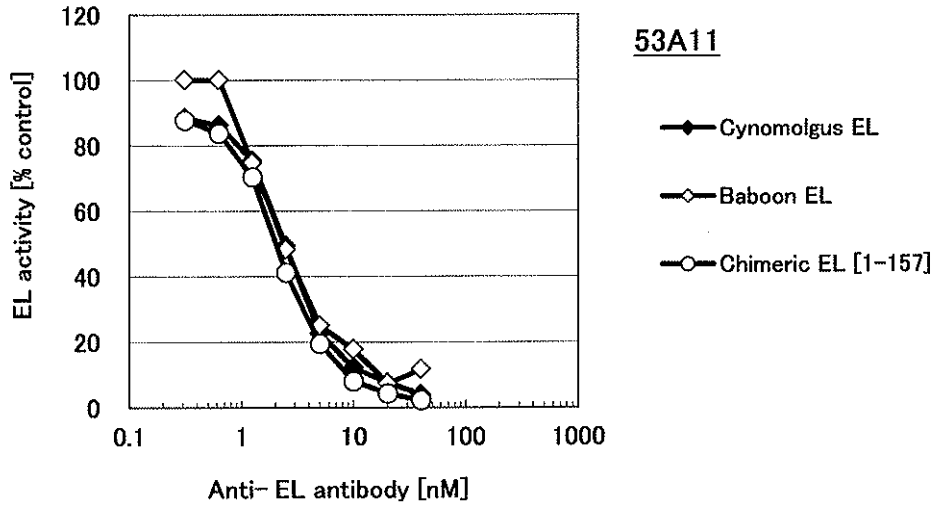



Figure1F

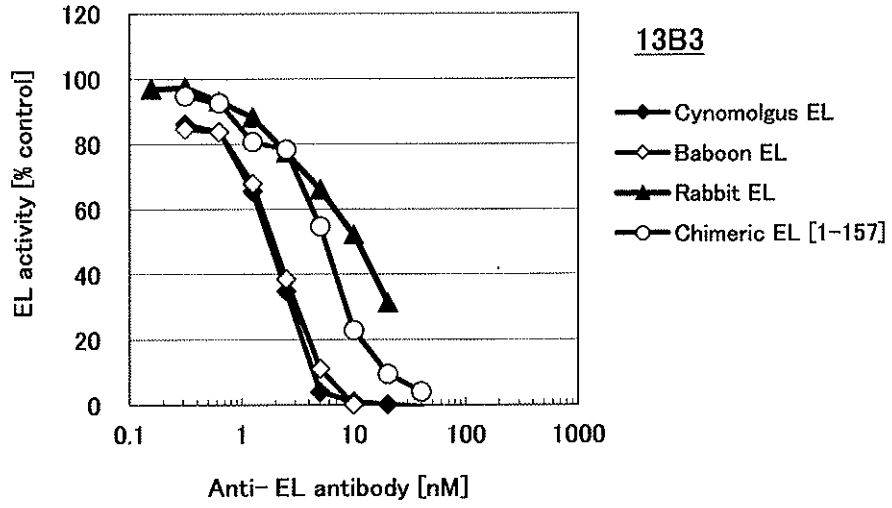


Figure1G

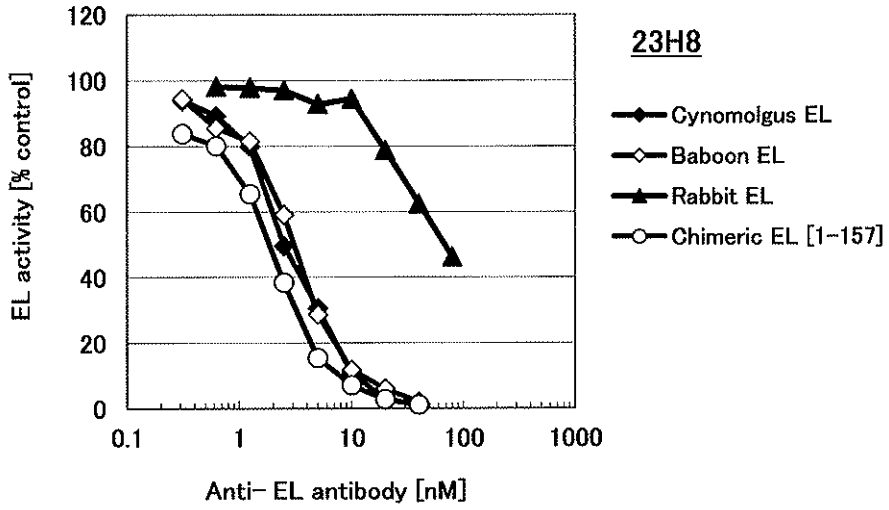



Figure1H

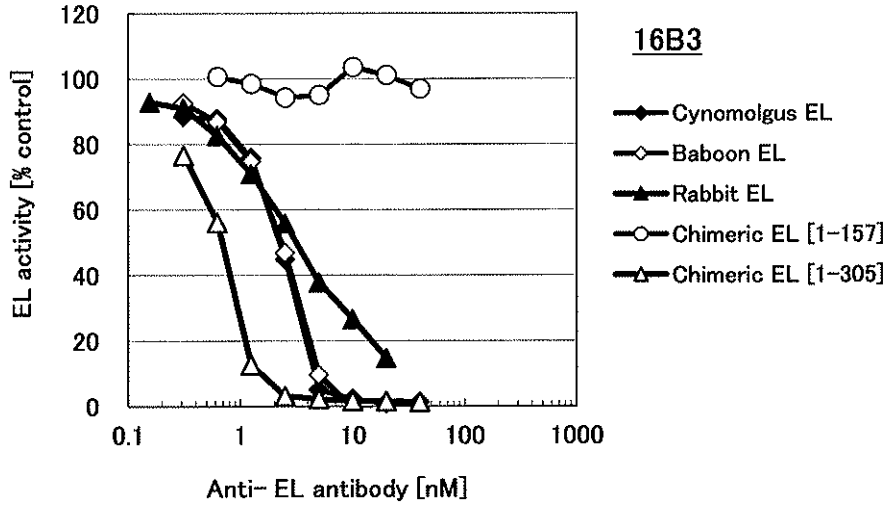



Figure1I

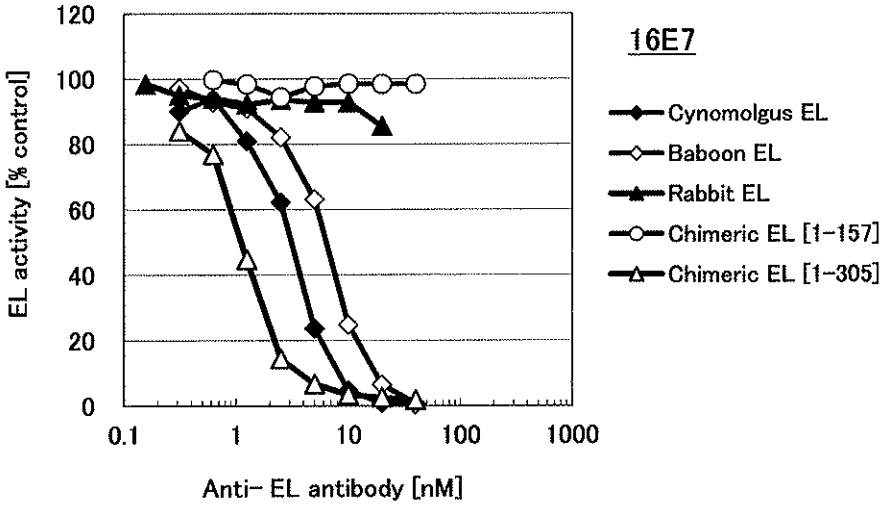


Figure1J

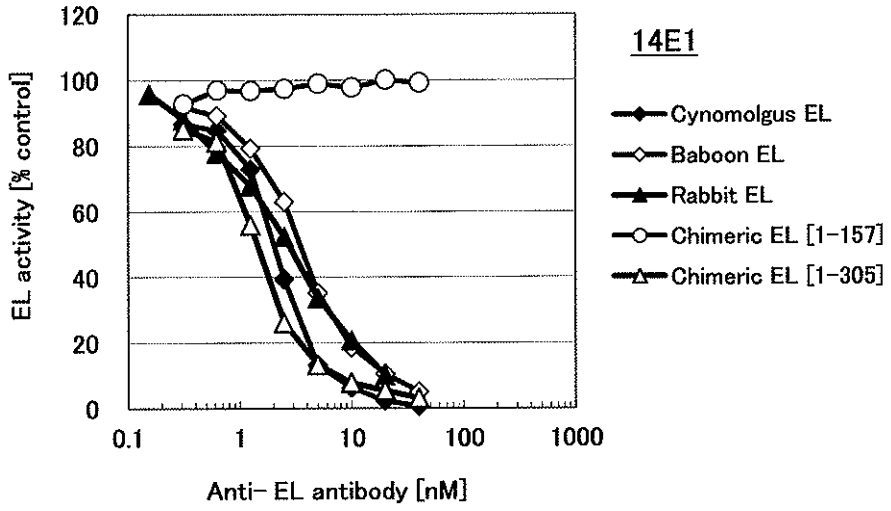



Figure1K

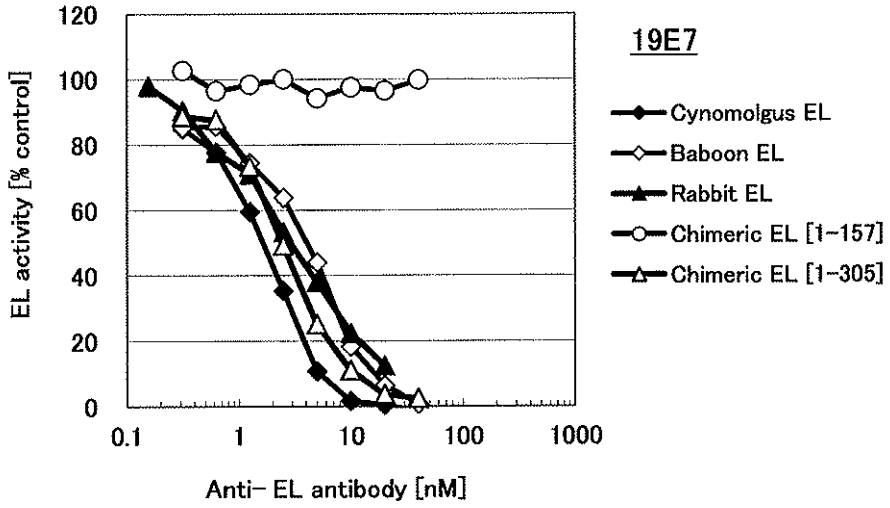



Figure2A

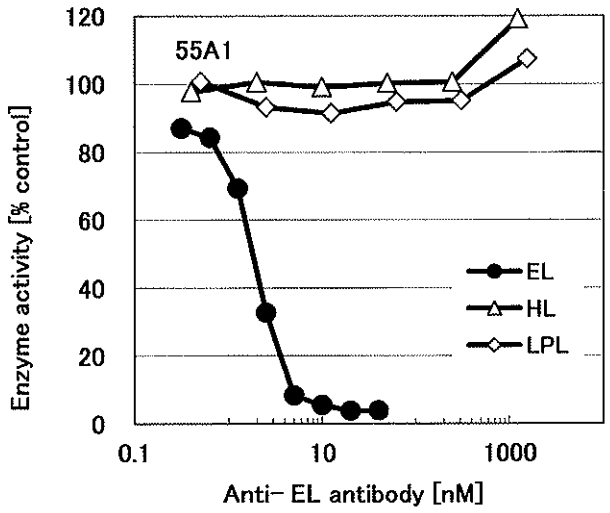


Figure2B

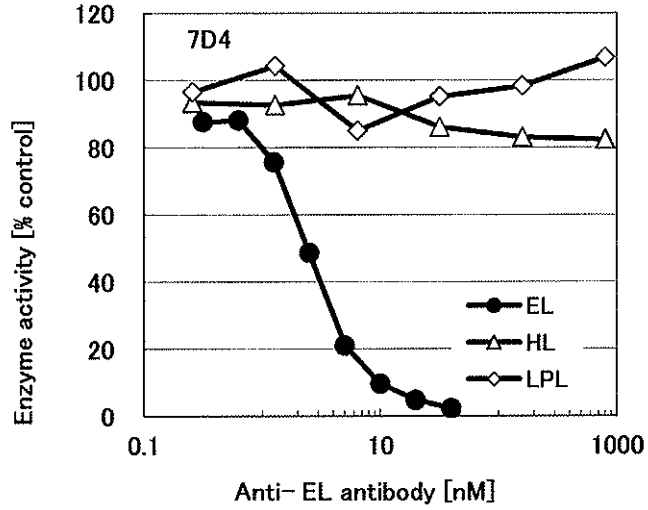



Figure2C

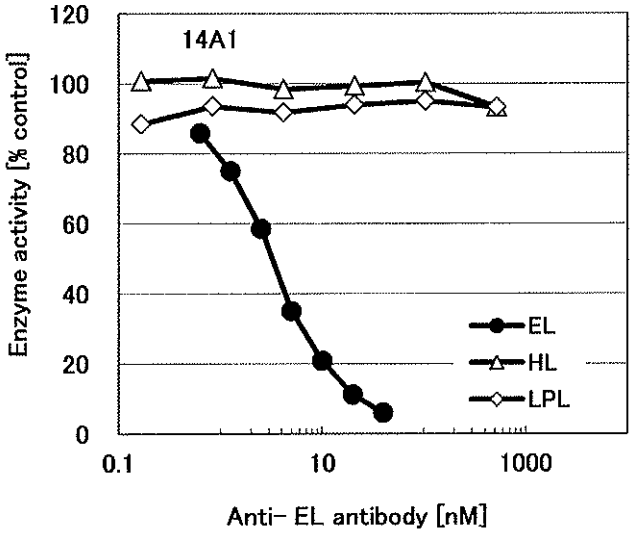



Figure2D

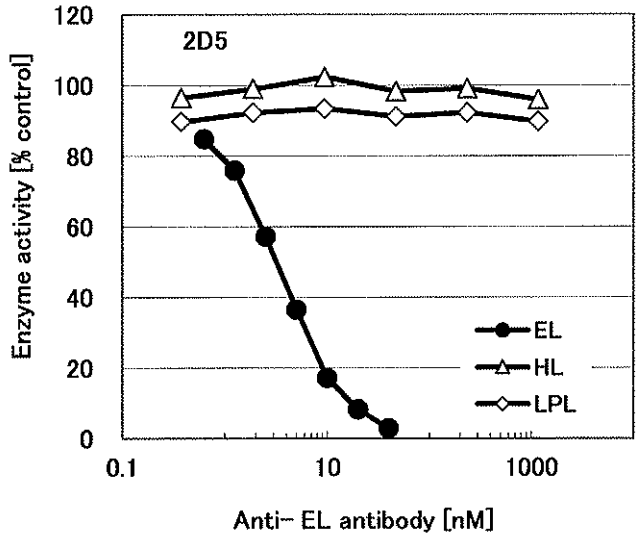



Figure2E

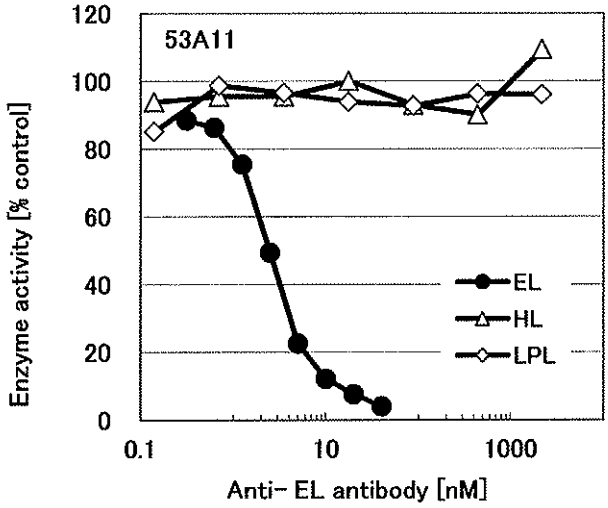



Figure2F

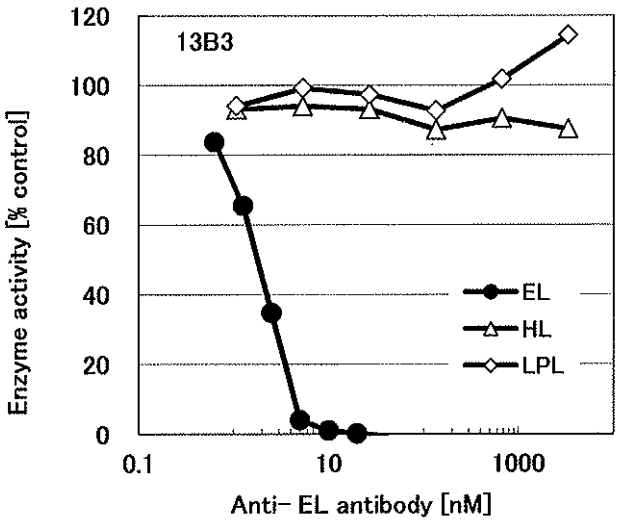



Figure2G

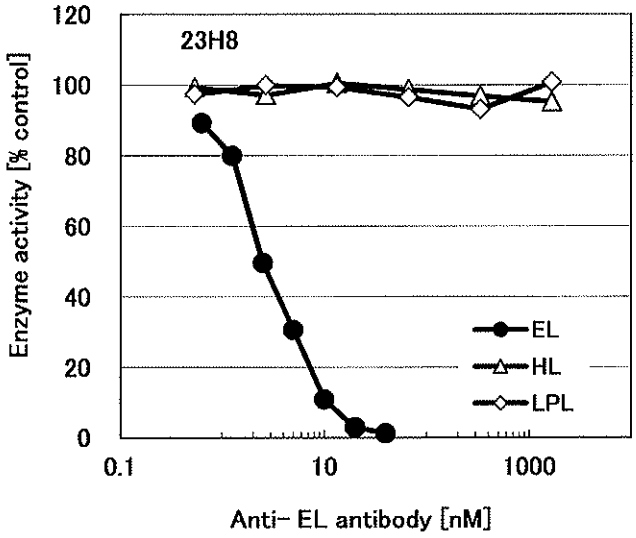



Figure2H

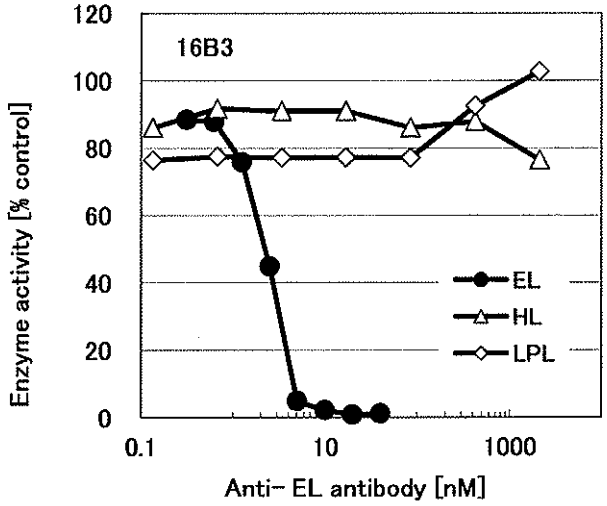



Figure2I

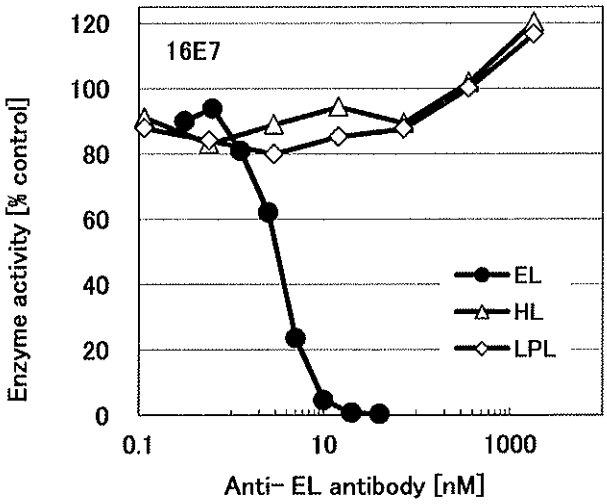


Figure2J

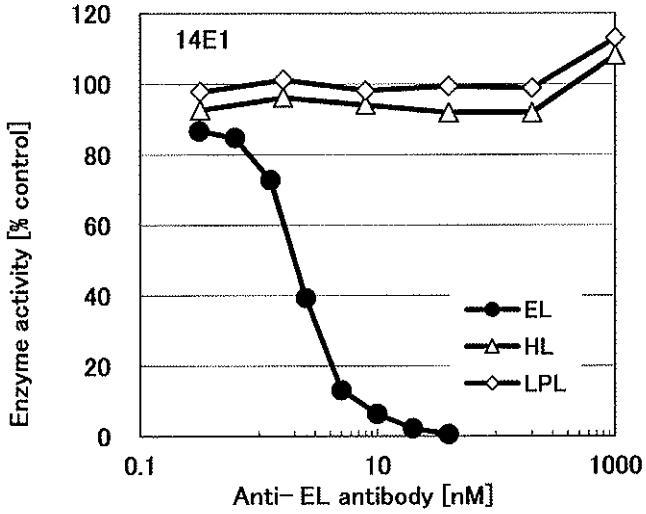



Figure2K

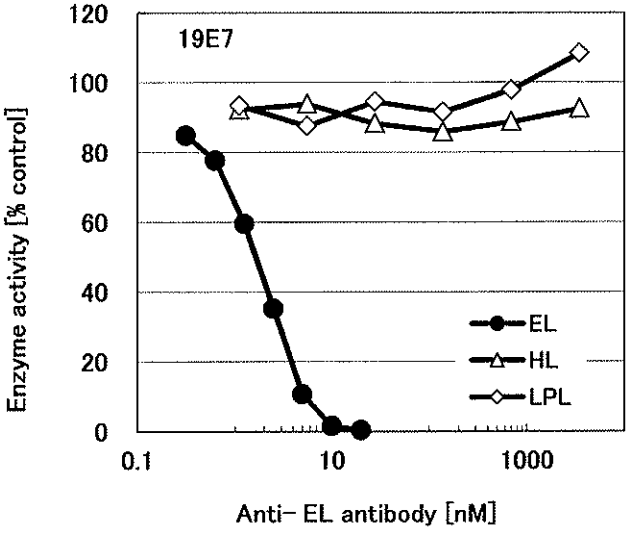



Figure2L

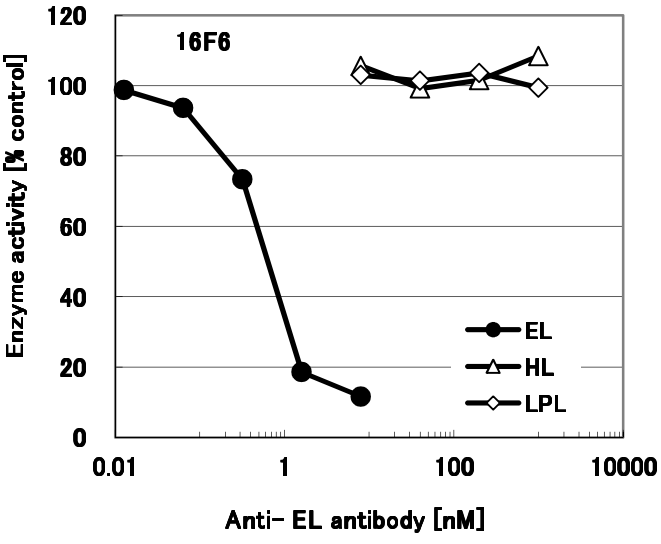


Figure3A

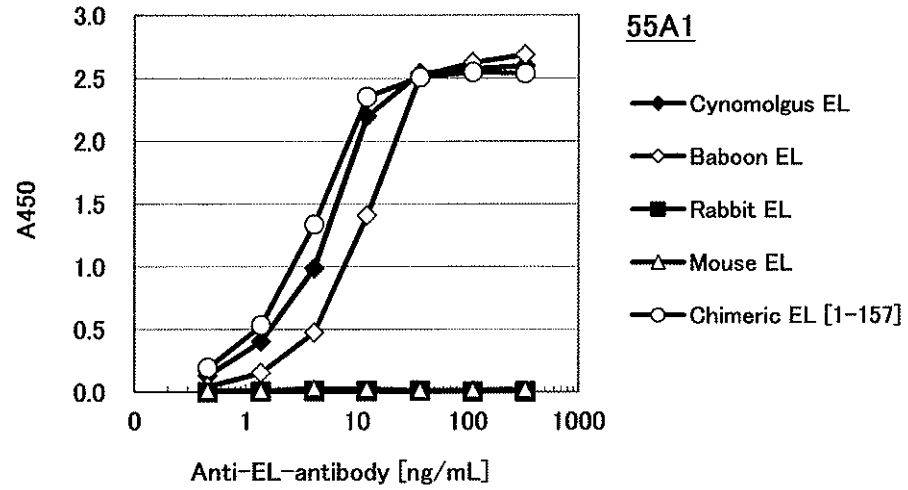



Figure3B

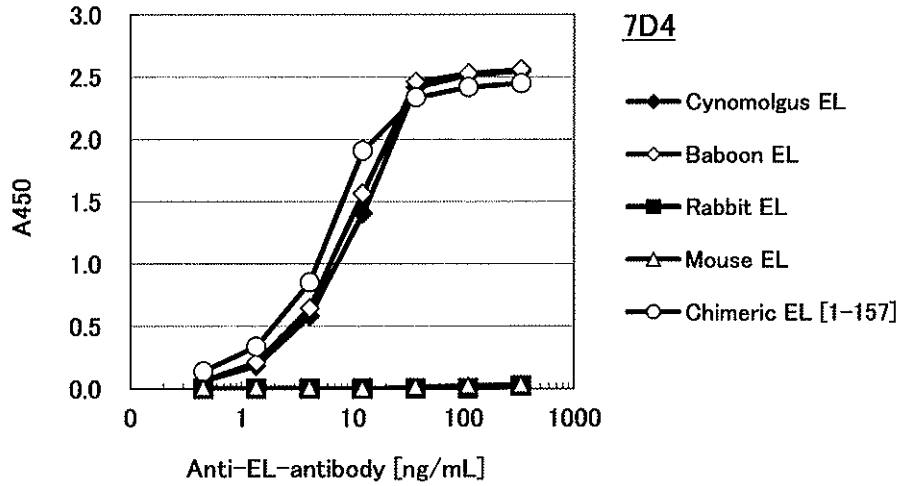



Figure3C

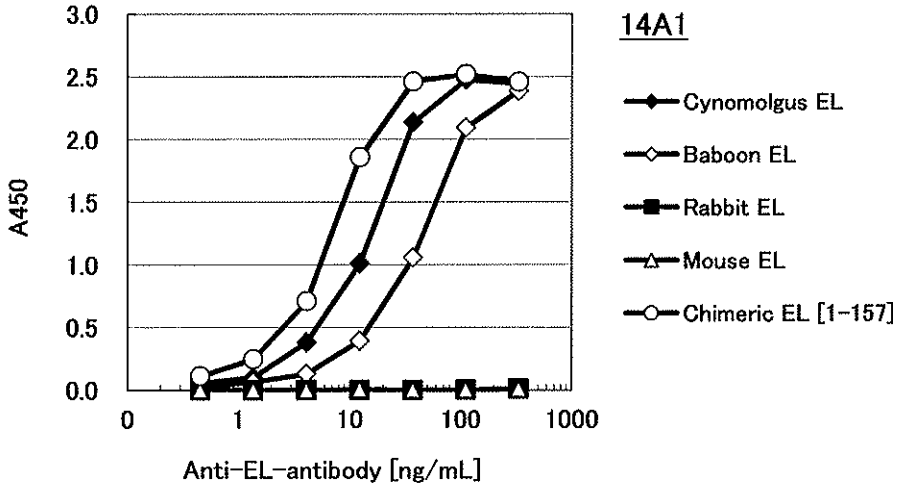


Figure3D

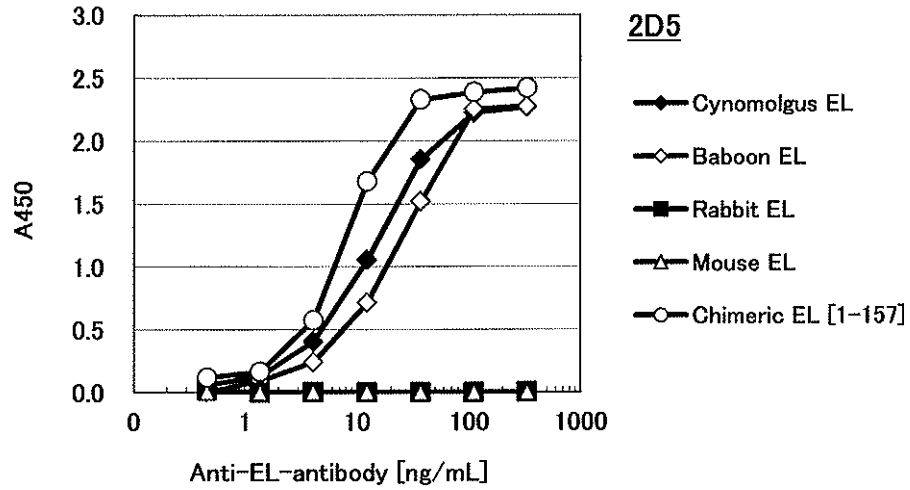



Figure3E

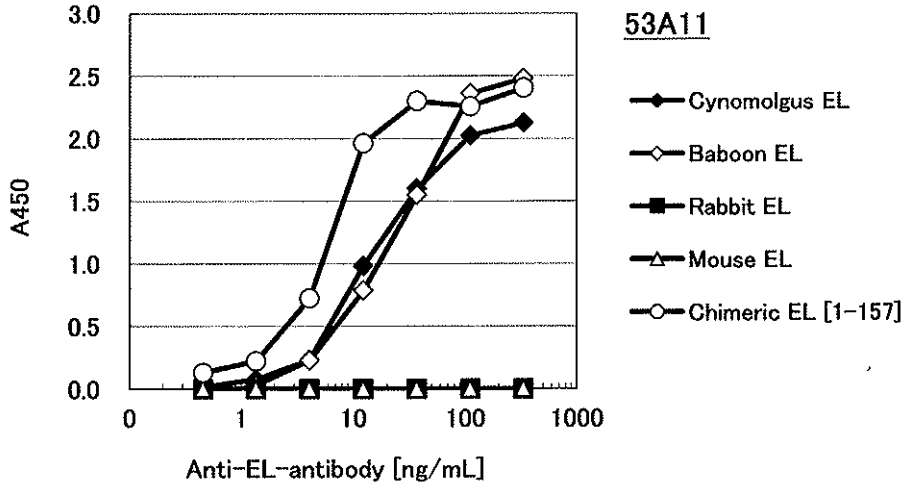



Figure3F

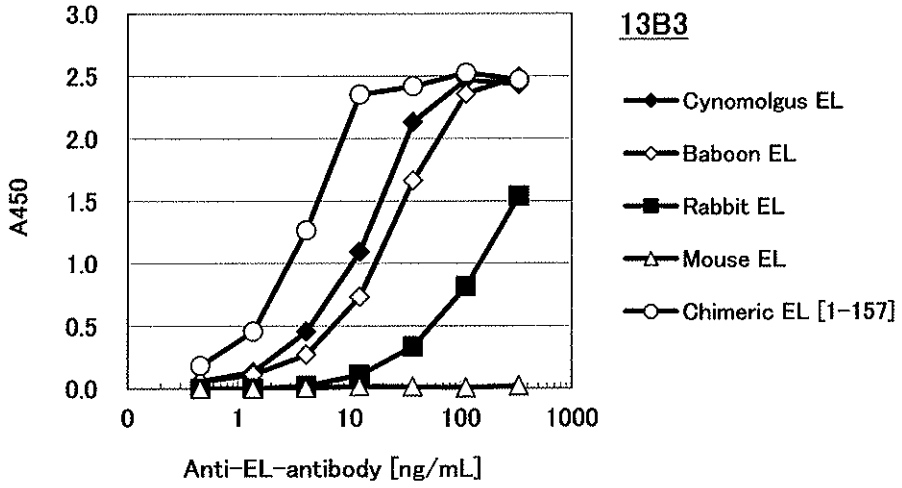


Figure3G

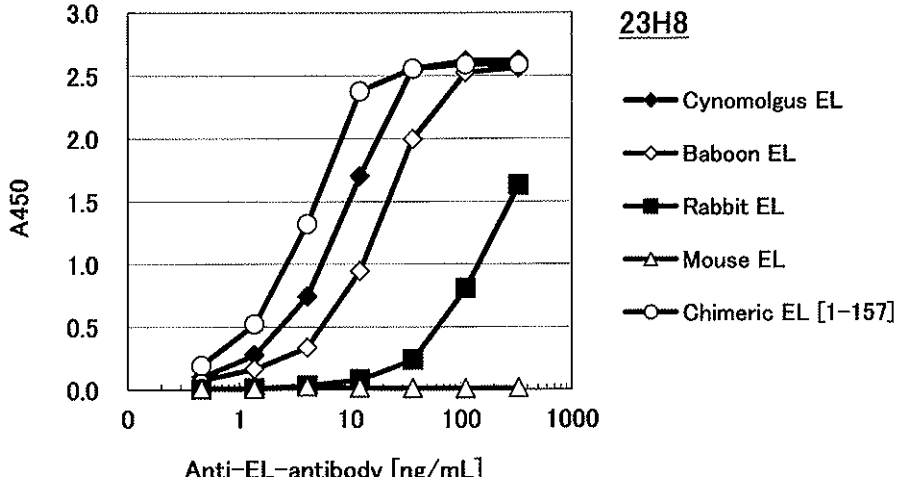



Figure3H

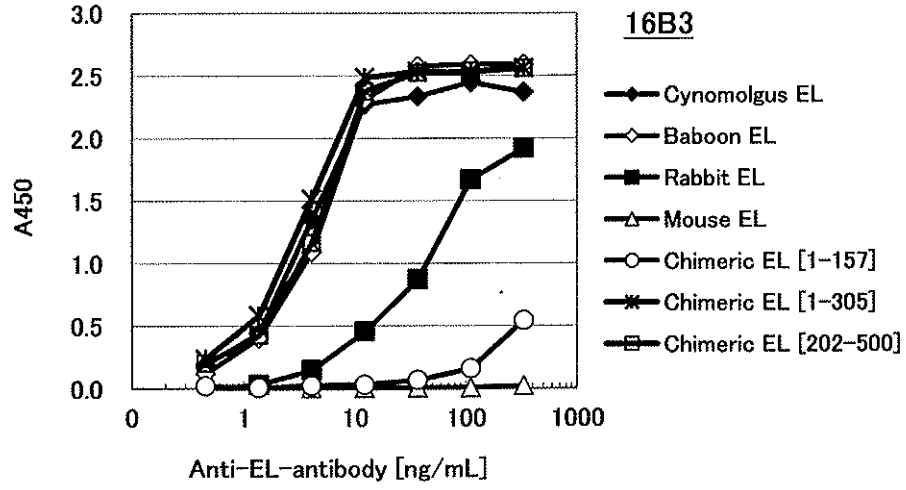



Figure3I

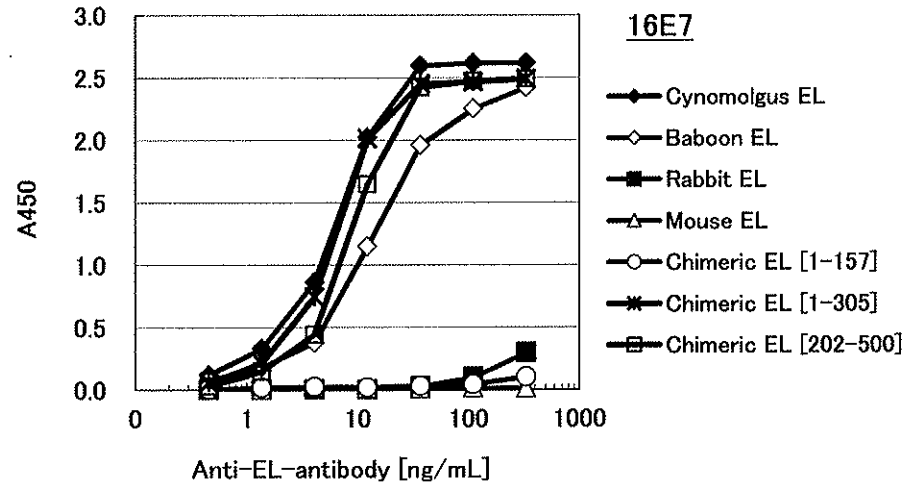


Figure3J

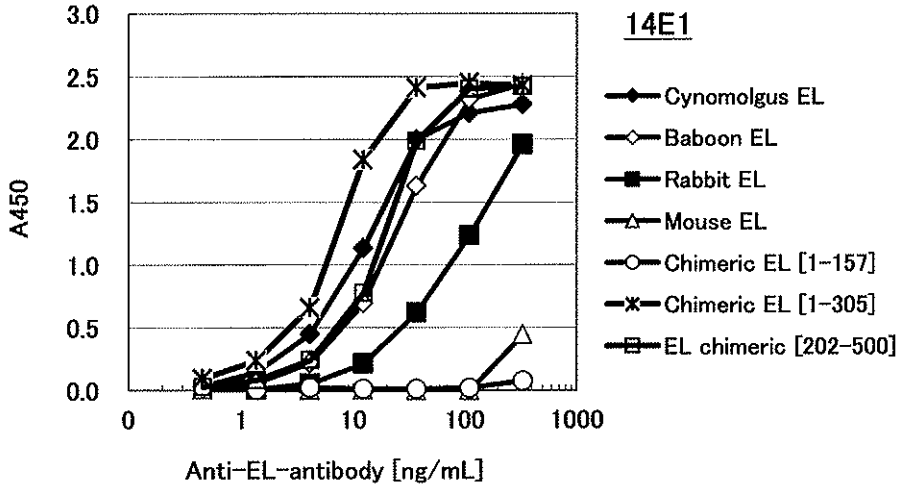



Figure3K

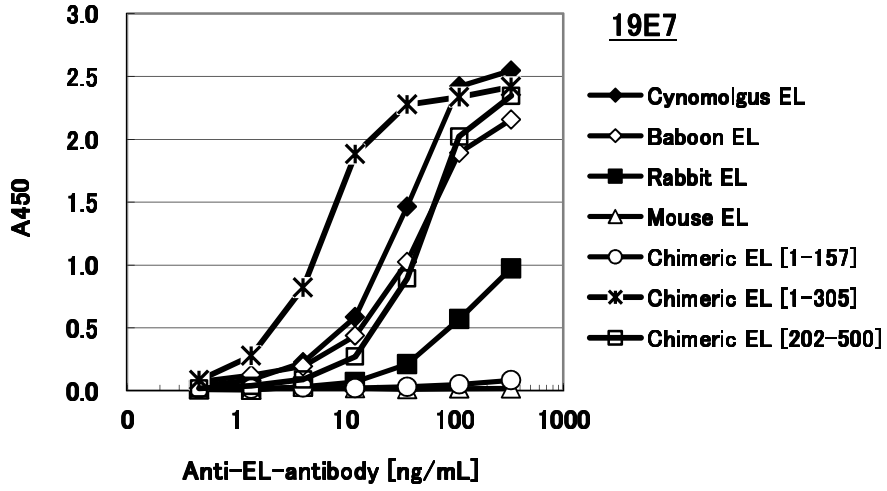
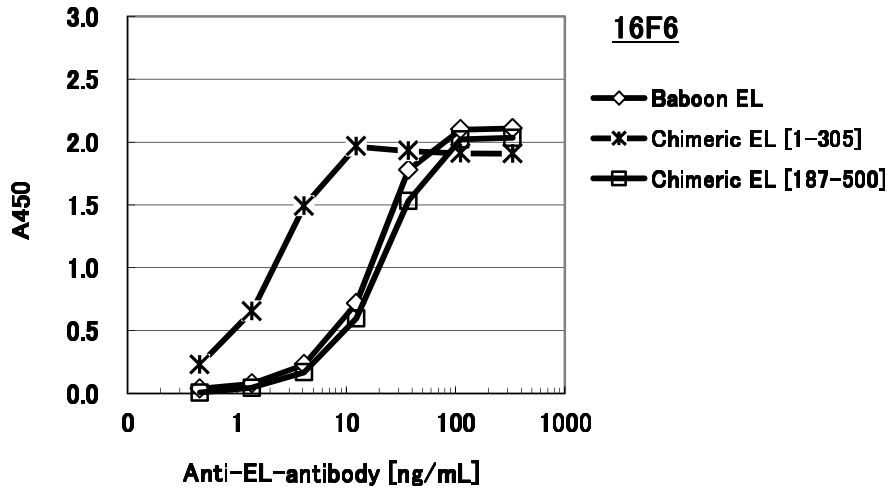



Figure3L




## Figure4A

Heavy chain of 55A1

CDR1 CDR2

QIHLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKGLKWMGWINTYSGVPTYAGDF

KGRFAFSLETSASTAYLQINNLKNEDTATYFCARRGYYGRRYFDVWGTGTTVTVSS

CDR3

Light chain of 55A1

CDR1 CDR2

DIVLTQSPASLAVSLGQRATISCKASQSVDYDVDSYMHWYQQKPGQPPKLLIYAASNLASGI

PARFSGGGSGTDFTLNIHPVEEEDVATYYCQQTIEDPPTFGGGTKLEIK

CDR3

## Figure4B

Heavy chain of 7D4

CDR1 CDR2

QIQLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKDLKWMGWINTYSGVPTYADDF

KGRFAFSLETSASTAYLQINNLKNEDTATYFCARFSYYGRHYFDYWGQGTTLTVSS

CDR3

Light chain of 7D4

CDR1 CDR2

DIVLTQSPASLAVSLGQRATISCKASQSVDYDGDSYMNWYQQKPGQPPQLLIYAASNLGSGI

PARFSGSGSGTDFTLNIHPVEEEDAATYYCHQSTDDPPWTFGGGTKLEIK

CDR3

## Figure4C

Heavy chain of 14A1

CDR1 CDR2

QIQLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKGLKWMGWINTYSGVPTYADDF

KGRFAFSLETSASTAYLQINNFKNEDTATYFCARFSYYGRHYFDYWGQGTALTASS

CDR3

Light chain of 14A1

CDR1 CDR2

DIVLTQSPASLAVSLGQRATISCKASQSVDYDGDSYMNWYQQKPGQPPKLLIYAASNLKSGI

PARFSGSGSGTDFTLNIHPVEEEDAATYYCQQTTDDPPWTFGGGTKLEIK

CDR3

## Figure4D

Heavy chain of 2D5

CDR1 CDR2

QIQLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKGLKWMGWINTYSGVPTYTDDF

KGRFAFSLETSASTAFLQINNLKNEDTATYFCARFSYYGRHYFDYWGQGTTLTVSS

CDR3

Light chain of 2D5

CDR1 CDR2

DIVLTQSPASLAVSLGQRATISCKASQSVDYDGDSYMHWYQQKPGQPPKLLIYAASNLESGI

PARFSGSGSGTDFTLNIHPVEEEDAATYYCQQTNDDPPWTFGGGTKLEIK

CDR3

## Figure4E

Heavy chain of 53A11

CDR1 CDR2

EVQLQQSGPELLKPGASVKISCKASGYTFTDYTMHWVKQSHGKSLEWIGGINPYYGGTTYNEKF

KDKATLTVDKSSSTAYMELRSLTSEDSAVYYCAKGDYYGGSYNYWGQGTTLTVSS

CDR3

Light chain of 53A11

CDR1 CDR2

DIVLTQSLATLSVTPGDSVSLSCRASQDISNSLHWYQQKSHESPRLLIKYASQSISGIPSRF

SGSGSGTDFTLSINSVETEDFGMYFCQQSNSWPYTFGGGTKLEIK

CDR3

## Figure4F

Heavy chain of 13B3

CDR1 CDR2

EVQLQQSGPELLKPGASVKISCKASGYTFTEYTMHWVKQSHGKSLEWIGSINPYYGGTSYNEKF

KDKATLTVDKSSNTAYMEFRSLTSEDCAVYYCARYGNYVGYFDYWGQGTTLTVSS

CDR3

Light chain of 13B3

CDR1 CDR2

ENVLTQSPAIMSASLGEKVTMSCRASSSVHYMYWYQQKSDASPKLWIYYTSNLAPGVPDRFS

GSGSGNSYSLTISSMEGEDAATYYCQQFTSSPYTFGGGTKLEIK

CDR3

## Figure4G

Heavy chain of 23H8

CDR1 CDR2

EVQLQQSGPELLKPGASVKISCKASGYTFTDNTIHWVKQSHGKSLEWIGHINPYYGGTNNNEKF

KDKATLTVDKSSSTAYMELRSLTSEDSAIYYCARKGIYYSSPFDYWGQGTTLTVSS

CDR3

Light chain of 23H8

CDR1 CDR2

DIQMTQTTSSLSASLGDRVTISCRASQDINNYLNWYQQKPDGTVKLLISYTSKLHSGVPS

RFSGSGSGTDYSLTISNLEREDFATYFCQQGNTLPFTFGSGTNLEIK

CDR3

## Figure4H

Heavy chain of 16B3

CDR1 CDR2

DVKLVESGGGLVQPGGSLKLSCTASGFTFSGYTMSWVRQTPEKRLELVAEISFARDRAFYPDTV

KGRFTISRDNAKNTLYLQMSSLKSEDTAMYYCTRLGGRNHDYWYFDVWGTGTTVTVSS

CDR3

Light chain of 16B3

CDR1 CDR2

DIVLTQSPTSLAVSPGQRATISCRASESVEYYGTSLMQWYQQKPGQRPQLLIYAASNVESGV

PARFSGSGSGTDFSLNIHPVEEDDIAVYFCQQSWKVPFTFGSGTKLEIK

CDR3

## Figure4I

Heavy chain of 16E7

CDR1 CDR2

EVKLVESGGGLVQPGGSLKLSCAASGFTFSSYTMSWVRQTPEKRLELVAEISFTRSRAFYPDTV
KGRFTISRDNAKNTLYLQMSSLKSEDTAMYYCARLGGNNYDYWYFDVWGTGTTVTVSS

CDR3

Light chain of 16E7

CDR1 CDR2

DIVLTQSPTSLAVSLGQRATISCRASESVEYYGTSLMQWYQQKPGQRPKLLIYAASNVESGV
PARFSGSGSGTDFSLNIHPVEEDDIAMYFCQQSWKVPFTFGSGTKLEIK

CDR3

## Figure4J

Heavy chain of 14E1

CDR1 CDR2

QVQLQQSGAELVKPGASVRLSCKASGYTFTKYTIHWVKQRSGQGLEWIGWFYPGSDSIKYNEKF
KDKATLTADKSSRTVYMELSRLTSEDSAVYFCARHEEYTNSLAYWGQGTLVTVSA

CDR3

Light chain of 14E1

CDR1 CDR2

DIQMTQTTSSLSASLGDRVTISCRASQDISNYLNWYQQQPDGTVKLLIYYTSRLHSGVPSRF
SGSGSGTDYSLTISNLEQEDIATYFCQQGYTLPWTFGGGTNLEIK

CDR3

## Figure4K

Heavy chain of 19E7

CDR1 CDR2

QVQLQQPGSVLVRPGASVKLSCKASGYTFTTYWMHWVKQRPGQGLEWIGEIHPYSGNNNNNEKF
KGKATLTVDTSSSTAYVDLSRLTSEDSAVYYCARYDSNYVFAYWGQGTLVTVSA

CDR3

Light chain of 19E7

CDR1 CDR2

QIVLTQSPAIMSASPGEGVTITCSASSSVSYMHWFQQKPGTSPKLWIYSTSNLASGVPARFS
GSGSGTSYSLTISRMEAEDAATYYCQQRDSYLTFGSGTKLEVK

CDR3

## Figure4L

Heavy chain of 16F6

CDR1 CDR2

QVQLQQSGAELMKPGASVKISCKATGYTFSTYWIAWVKQRPGHGLEWIGEILPGSAKTKYNKKF
KGKATFTADTSSNTAYMQLSSLTSEDSAVYYCAVYDYGADYWGQGTSVTVSS

CDR3

Light chain of 16F6

CDR1 CDR2

DIVMTQSHKFMSTSVGDRVSITCKASQDVYTAVAWYQQKPGQSPKLLIYSASYRFTGVPDRF
TGSGAGTEFTFTINSVQAEDLAVYYCQQHYSIPRTFGGGTKLEIK

CDR3

## Figure5A

```
55A1    1:QIHLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKGLKWMGWINTYSGVPTY 60
7D4     1:QIQLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKDLKWMGWINTYSGVPTY 60
14A1    1:QIQLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKGLKWMGWINTYSGVPTY 60
2D5     1:QIQLVQSGPELKKPGETVKISCKASGYTFTNYGMNWVKQAPGKGLKWMGWINTYSGVPTY 60

55A1   61:AGDFKGRFAFSLETSASTAYLQINNLKNEDTATYFCARRGYYGRRYFDVWGTGTTVTVSS 120
7D4    61:ADDFKGRFAFSLETSASTAYLQINNLKNEDTATYFCARFSYYGRHYFDYWGQGTTLTVSS 120
14A1   61:ADDFKGRFAFSLETSASTAYLQINNFKNEDTATYFCARFSYYGRHYFDYWGQGTALTASS 120
2D5    61:TDDFKGRFAFSLETSASTAFLQINNLKNEDTATYFCARFSYYGRHYFDYWGQGTTLTVSS 120
```

## Figure5B

```
55A1    1:DIVLTQSPASLAVSLGQRATISCKASQSVDYDVDSYMHWYQQKPGQPPKLLIYAASNLAS 60
7D4     1:DIVLTQSPASLAVSLGQRATISCKASQSVDYDGDSYMNWYQQKPGQPPQLLIYAASNLGS 60
14A1    1:DIVLTQSPASLAVSLGQRATISCKASQSVDYDGDSYMNWYQQKPGQPPKLLIYAASNLKS 60
2D5     1:DIVLTQSPASLAVSLGQRATISCKASQSVDYDGDSYMHWYQQKPGQPPKLLIYAASNLES 60

55A1   61:GIPARFSGGGSGTDFTLNIHPVEEEDVATYYCQQTIEDPP-TFGGGTKLEIK        111
7D4    61:GIPARFSGSGSGTDFTLNIHPVEEEDAATYYCHQSTDDPPWTFGGGTKLEIK        112
14A1   61:GIPARFSGSGSGTDFTLNIHPVEEEDAATYYCQQTTDDPPWTFGGGTKLEIK        112
2D5    61:GIPARFSGSGSGTDFTLNIHPVEEEDAATYYCQQTNDDPPWTFGGGTKLEIK        112
```

## Figure5C

```
53A11    1:EVQLQQSGPELLKPGASVKISCKASGYTFTDYTMHWVKQSHGKSLEWIGGINPYYGGTTY 60
13B3     1:EVQLQQSGPELLKPGASVKISCKASGYTFTEYTMHWVKQSHGKSLEWIGSINPYYGGTSY 60
23H8     1:EVQLQQSGPELLKPGASVKISCKASGYTFTDNTIHWVKQSHGKSLEWIGHINPYYGGTNN 60

53A11   61:NEKFKDKATLTVDKSSSTAYMELRSLTSEDSAVYYCAKGD-YYGGSYNYWGQGTTLTVSS 119
13B3    61:NEKFKDKATLTVDKSSNTAYMEFRSLTSEDCAVYYCARYG-NYVGYFDYWGQGTTLTVSS 119
23H8    61:NEKFKDKATLTVDKSSSTAYMELRSLTSEDSAIYYCARKGIYYSSPFDYWGQGTTLTVSS 120
```

## Figure5D

```
53A11    1:DIVLTQSLATLSVTPGDSVSLSCRASQDISNSLHWYQQKSHESPRLLIKYASQSISGIPS 60
13B3     1:ENVLTQSPAIMSASLGEKVTMSCRASSSV-HYMYWYQQKSDASPKLWIYYTSNLAPGVPD 59
23H8     1:DIQMTQTTSSLSASLGDRVTISCRASQDINNYLNWYQQKPDGTVKLLISYTSKLHSGVPS 60

53A11   61:RFSGSGSGTDFTLSINSVETEDFGMYFCQQSNSWPYTFGGGTKLEIK          107
13B3    60:RFSGSGSGNSYSLTISSMEGEDAATYYCQQFTSSPYTFGGGTKLEIK          106
23H8    61:RFSGSGSGTDYSLTISNLEREDFATYFCQQGNTLPFTFGSGTNLEIK          107
```

## Figure6A

```
16B3     1:DVKLVESGGGLVQPGGSLKLSCTASGFTFSGYTMSWVRQTPEKRLELVAEISFARDRAFY 60
16E7     1:EVKLVESGGGLVQPGGSLKLSCAASGFTFSSYTMSWVRQTPEKRLELVAEISFTRSRAFY 60

16B3    61:PDTVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYCTRLGGRNHDYWYFDVWGTGTTVTV 120
16E7    61:PDTVKGRFTISRDNAKNTLYLQMSSLKSEDTAMYYCARLGGNNYDYWYFDVWGTGTTVTV 120

16B3   121:SS                                                        122
16E7   121:SS                                                        122
```

## Figure6B

```
16B3    1:DIVLTQSPTSLAVSPGQRATISCRASESVEYYGTSLMQWYQQKPGQRPQLLIYAASNVES 60
16E7    1:DIVLTQSPTSLAVSLGQRATISCRASESVEYYGTSLMQWYQQKPGQRPKLLIYAASNVES 60

16B3   61:GVPARFSGSGSGTDFSLNIHPVEEDDIAVYFCQQSWKVPFTFGSGTKLEIK         111
16E7   61:GVPARFSGSGSGTDFSLNIHPVEEDDIAMYFCQQSWKVPFTFGSGTKLEIK         111
```

## Figure6C

```
14E1    1:QVQLQQSGAELVKPGASVRLSCKASGYTFTKYTIHWVKQRSGQGLEWIGWFYPGSDSIKY 60
19E7    1:QVQLQQPGSVLVRPGASVKLSCKASGYTFTTYWMHWVKQRPGQGLEWIGEIHPYSGNNNN 60

14E1   61:NEKFKDKATLTADKSSRTVYMELSRLTSEDSAVYFCARHEEYTNSLAYWGQGTLVTVSA 119
19E7   61:NEKFKGKATLTVDTSSSTAYVDLSRLTSEDSAVYYCARYDS-NYVFAYWGQGTLVTVSA 118
```

## Figure6D

```
14E1    1:DIQMTQTTSSLSASLGDRVTISCRASQDISNYLNWYQQQPDGTVKLLIYYTSRLHSGVPS 60
19E7    1:QIVLTQSPAIMSASPGEGVTITCSASSSVS-YMHWFQQKPGTSPKLWIYSTSNLASGVPA 59

14E1   61:RFSGSGSGTDYSLTISNLEQEDIATYFCQQGYTLPWTFGGGTNLEIK             107
19E7   60:RFSGSGSGTSYSLTISRMEAEDAATYYCQQRDSY-LTFGSGTKLEVK             105
```

## Figure7A

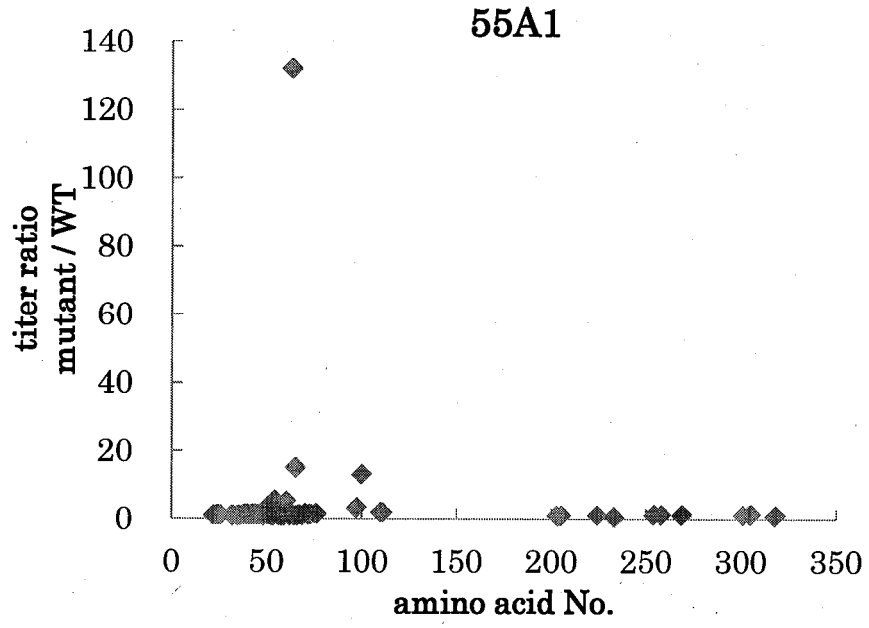

55A1
140
120
100
80
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titer ratio
mutant / WT
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50
100
150
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300
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amino acid No.

Figure7B

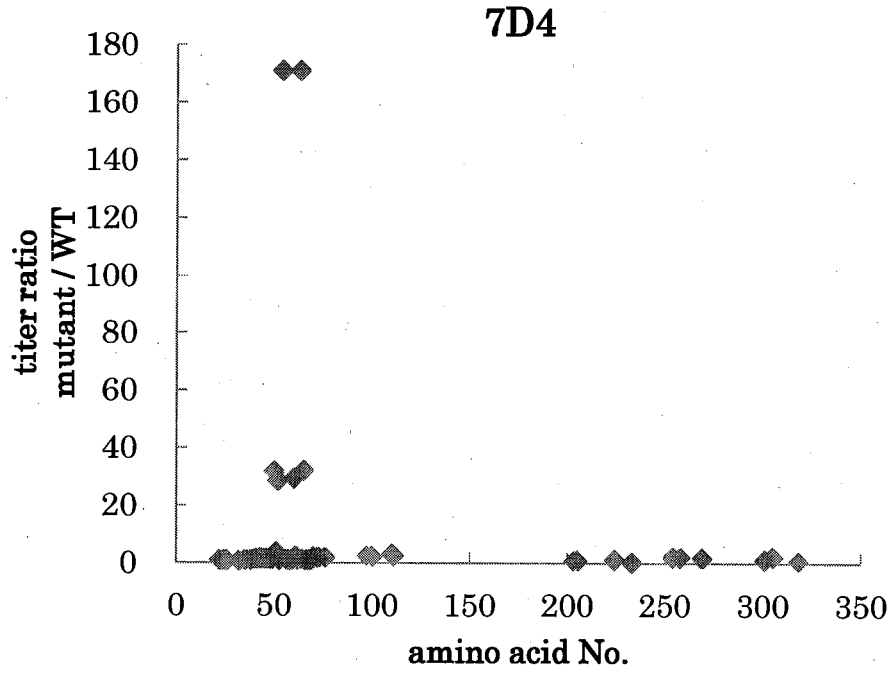

7D4
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140
120
100
80
60
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titer ratio
mutant / WT
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150
200
250
300
350
amino acid No.

Figure7C

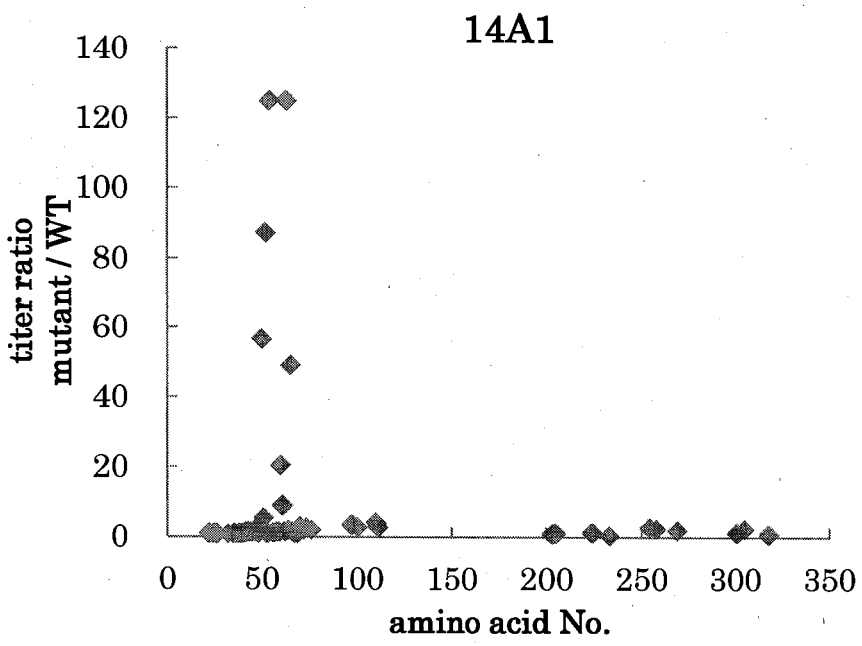



Figure7D

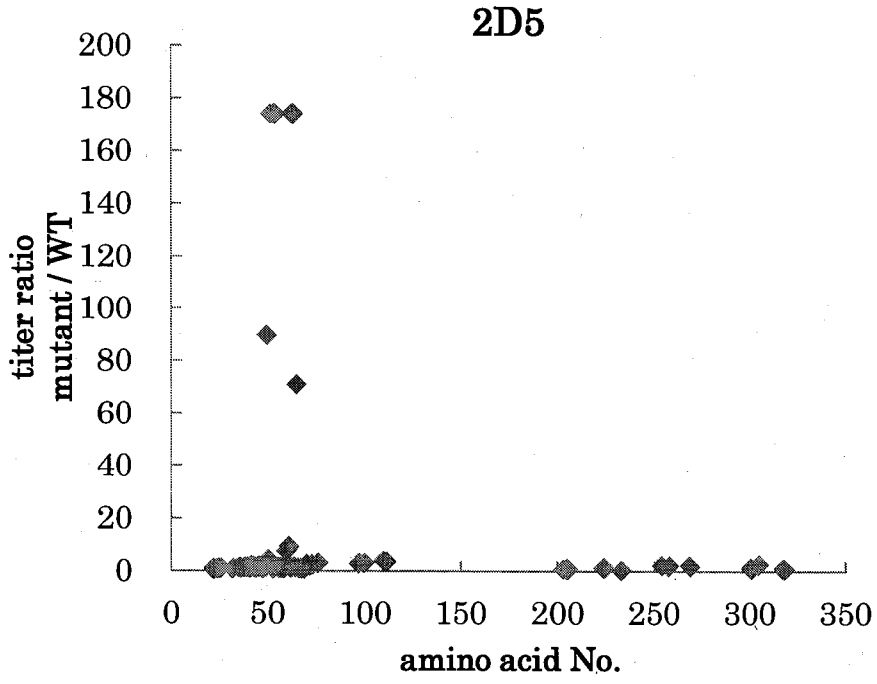


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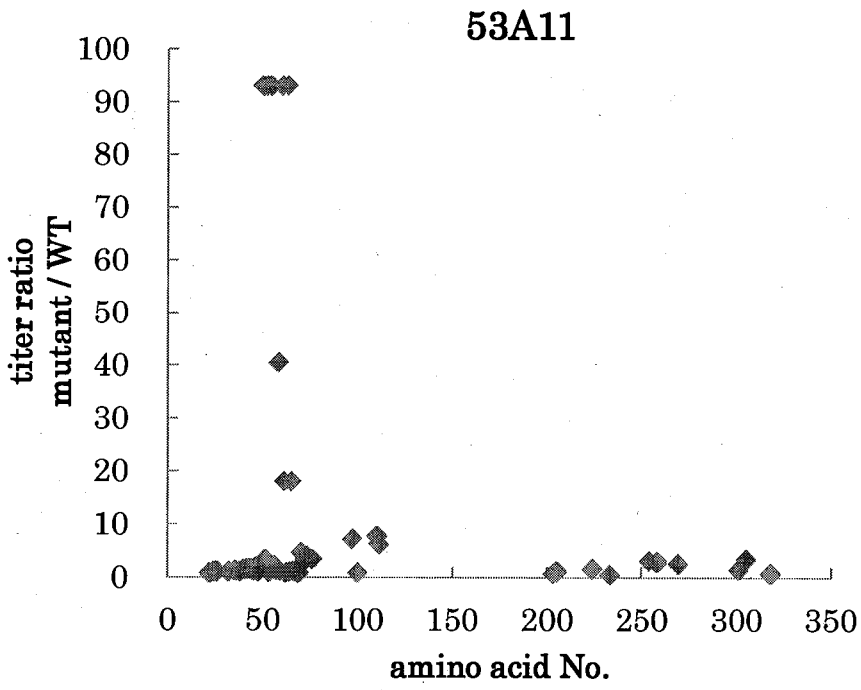



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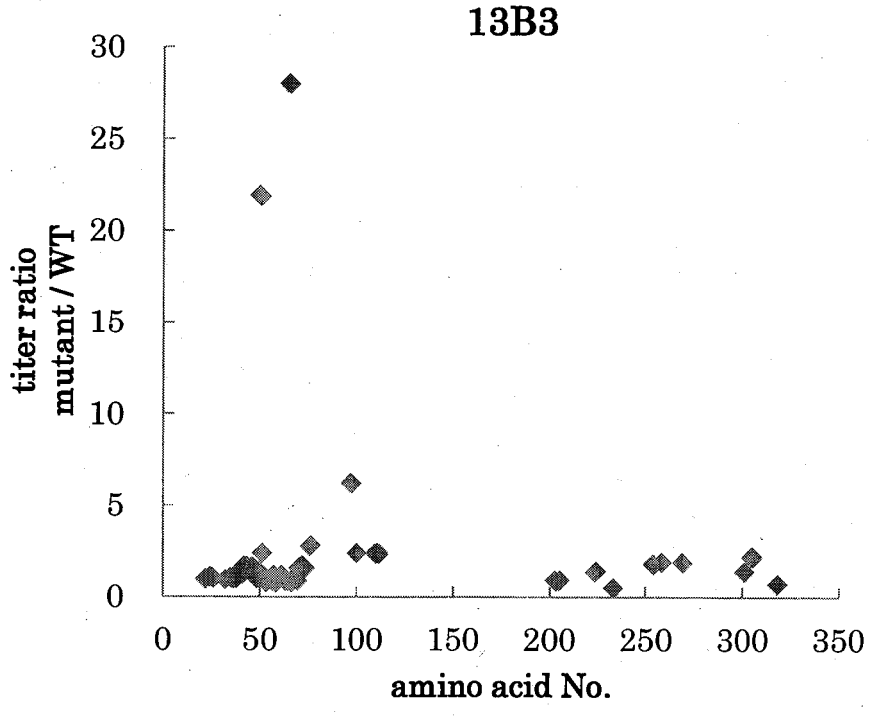


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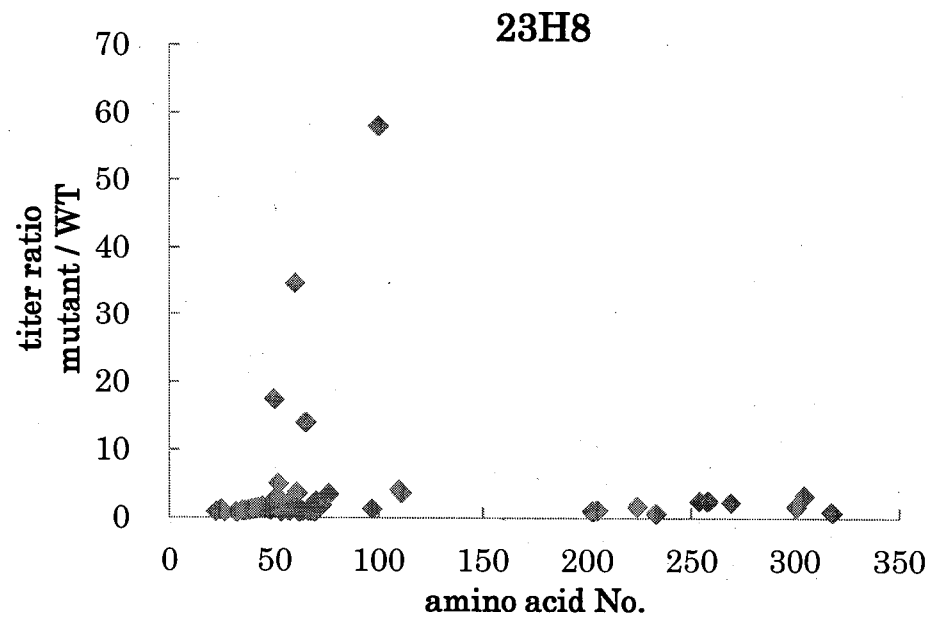



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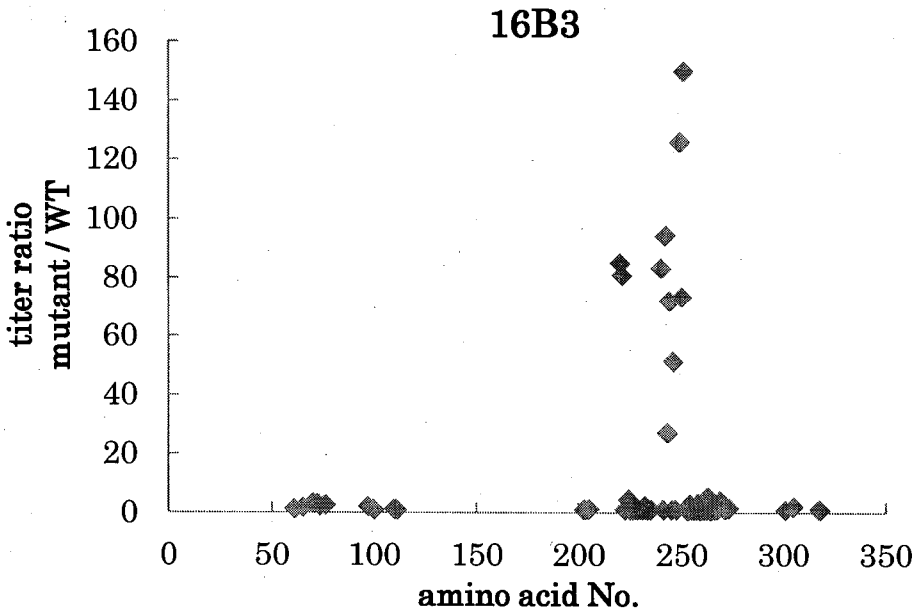


Figure7I

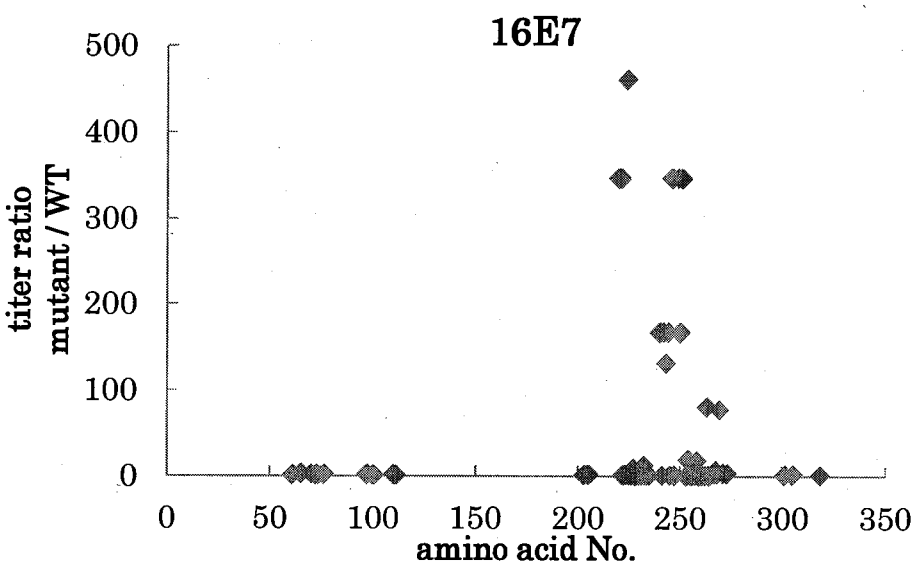



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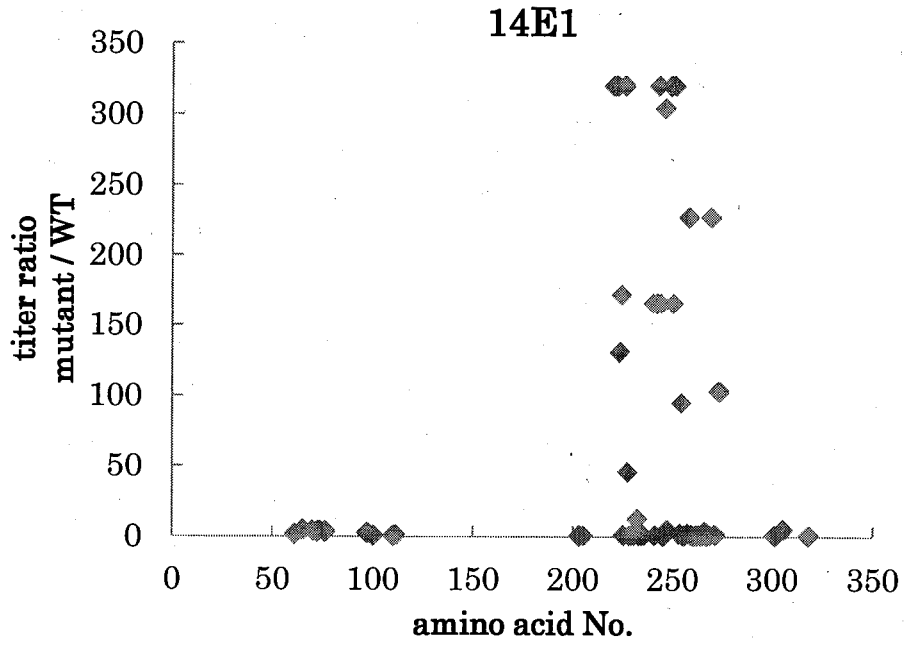
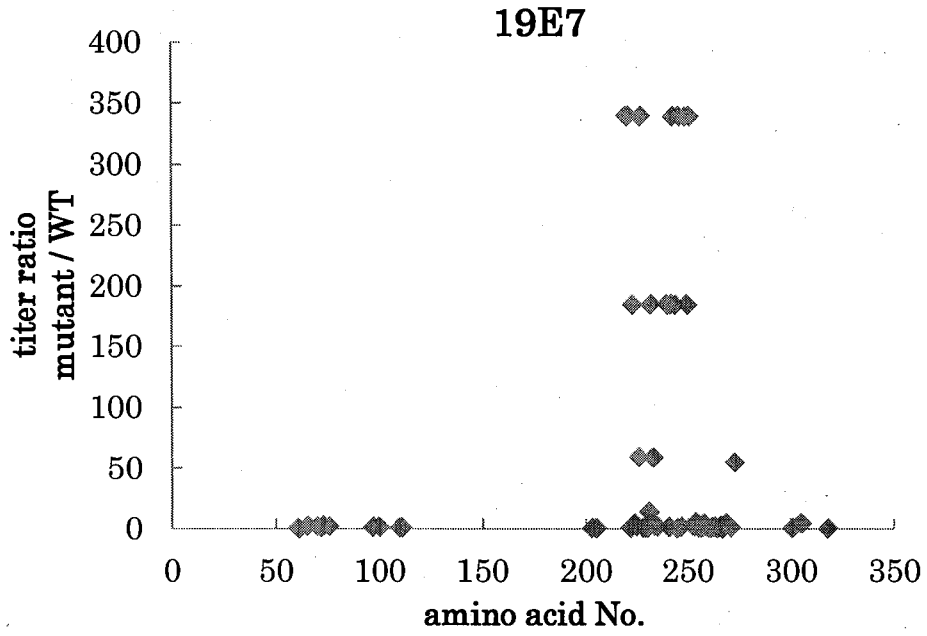


Figure7K


19E7
400
350
300
250
200
150
100
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titer ratio
mutant / WT
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50
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150
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250
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amino acid No.

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Asp Lys Leu His Lys Pro Lys Ala Thr Gln Thr Glu Val Lys Pro Ser
        35                  40                  45

Val Arg Phe Asn Leu Arg Thr Ser Lys Asp Pro Glu His Glu Gly Cys
    50                  55                  60

Tyr Leu Ser Val Gly His Ser Gln Pro Leu Glu Asp Cys Ser Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Ile Phe Glu Asn Trp Leu His Lys Leu Val Ser Ala Leu His Thr Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly His Ser
    130                 135                 140

Ile Ala Arg Met Leu Asp Trp Leu Gln Glu Lys Asp Asp Phe Ser Leu
145                 150                 155                 160
```

```
Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Ala Asp Ile His Lys Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn Asp
                245                 250                 255

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

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Asn Arg Phe Lys
    290                 295                 300

Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Ser Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Met Arg Asn Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Arg Val Tyr His Tyr Gln Met Lys
            340                 345                 350

Ile His Val Phe Ser Tyr Lys Asn Met Gly Glu Ile Glu Pro Thr Phe
        355                 360                 365

Tyr Val Thr Leu Tyr Gly Thr Asn Ala Asp Ser Gln Thr Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Arg Ile Glu Gln Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Ile Gln Leu Thr Trp
                405                 410                 415
```

```
Glu Gly Ala Ser Gln Ser Trp Tyr Asn Leu Trp Lys Glu Phe Arg Ser
            420                 425                 430

Tyr Leu Ser Gln Pro Arg Asn Pro Gly Arg Glu Leu Asn Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Leu Thr Phe Cys Thr
    450                 455                 460

Glu Asp Pro Glu Asn Thr Ser Ile Ser Pro Gly Arg Glu Leu Trp Phe
465                 470                 475                 480

Arg Lys Cys Arg Asp Gly Trp Arg Met Lys Asn Glu Thr Ser Pro Thr
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Val Glu Leu Pro
            500
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            20                  25                  30

Asp Glu Leu His Lys Pro Lys Ala Ile Gln Thr Glu Val Lys Pro Ser
        35                  40                  45

Val Arg Phe Asn Leu Arg Thr Ser Lys Asp Pro Glu His Glu Gly Cys
    50                  55                  60

Tyr Leu Ser Leu Gly His Ser Gln Pro Leu Glu Asp Cys Gly Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Ile Phe Glu Asn Trp Leu His Lys Leu Val Ser Ala Leu His Thr Arg
```

```
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly His Ser
    130                 135                 140

Ile Ala Arg Met Leu Asp Trp Leu Gln Glu Lys Asp Asp Phe Ser Leu
145                 150                 155                 160

Glu Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Ala Asp Ile His Lys Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn Asp
                245                 250                 255

Val Leu Gly Ser Met Ala Tyr Gly Thr Ile Thr Glu Val Val Lys Cys
            260                 265                 270

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Asn Arg Phe Lys
    290                 295                 300

Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Ser Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Met Arg Asn Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Arg Val Tyr His Tyr Gln Met Lys
            340                 345                 350
```

```
Ile His Val Phe Ser Tyr Lys Asn Met Gly Glu Ile Glu Pro Thr Phe
        355                 360                 365

Tyr Val Thr Leu Tyr Gly Thr Asn Ala Asp Ser Gln Thr Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Arg Ile Glu Gln Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Ile Gln Leu Thr Trp
                405                 410                 415

Glu Gly Ala Ser Gln Ser Trp Tyr Asn Leu Trp Lys Glu Leu Arg Ser
            420                 425                 430

Tyr Leu Ser Gln Pro His Asn Pro Gly Arg Glu Leu Asn Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Leu Thr Phe Cys Ala
    450                 455                 460

Glu Asp Pro Glu Asn Thr Ser Ile Ser Pro Gly Arg Glu Leu Trp Phe
465                 470                 475                 480

Arg Lys Cys Arg Asp Gly Trp Arg Met Lys Asn Glu Thr Ser Pro Thr
                485                 490                 495

Val Glu Leu Pro Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
            500                 505                 510

Gly Pro Pro Gly Pro Gln Gly
        515
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Phe Ala Ala Gly Ser Pro Thr Pro Phe Gly Pro Glu Gly Gln Leu Ala
            20                  25                  30
```

```
Asp Glu Leu His Lys Pro Lys Ala Ile Gln Thr Glu Val Lys Pro Ser
        35                  40                  45

Val Arg Phe Asn Leu Arg Thr Ser Lys Asp Pro Glu His Glu Gly Cys
    50                  55                  60

Tyr Leu Ser Leu Gly His Ser Gln Pro Leu Glu Asp Cys Gly Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Ile Phe Glu Asn Trp Leu His Lys Leu Val Ser Ala Leu His Thr Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly His Ser
    130                 135                 140

Ile Ala Arg Met Leu Asp Trp Leu Gln Glu Lys Asp Asp Phe Ser Leu
145                 150                 155                 160

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Ala Asp Ile His Lys Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn Asp
                245                 250                 255

Val Leu Gly Ser Met Ala Tyr Gly Thr Ile Thr Glu Val Val Lys Cys
            260                 265                 270

Glu His Glu Arg Ala Val His Leu Phe Val Asp Ser Leu Val Asn Gln
        275                 280                 285
```

```
Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Asn Arg Phe Lys
    290                 295                 300

Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Ser Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Met Arg Asn Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Arg Val Tyr His Tyr Gln Met Lys
            340                 345                 350

Ile His Val Phe Ser Tyr Lys Asn Met Gly Glu Ile Glu Pro Thr Phe
        355                 360                 365

Tyr Val Thr Leu Tyr Gly Thr Asn Ala Asp Ser Gln Thr Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Arg Ile Glu Gln Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Ile Gln Leu Thr Trp
                405                 410                 415

Glu Gly Ala Ser Gln Ser Trp Tyr Asn Leu Trp Lys Glu Leu Arg Ser
            420                 425                 430

Tyr Leu Ser Gln Pro His Asn Pro Gly Arg Glu Leu Asn Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Leu Thr Phe Cys Ala
    450                 455                 460

Glu Asp Pro Glu Asn Thr Ser Ile Ser Pro Gly Arg Glu Leu Trp Phe
465                 470                 475                 480

Arg Lys Cys Arg Asp Gly Trp Arg Met Lys Asn Glu Thr Ser Pro Thr
                485                 490                 495

Val Glu Leu Pro Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
            500                 505                 510

Gly Pro Pro Gly Pro Gln Gly
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1               5                  10                  15

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

Asp Lys Leu His Lys Pro Lys Ala Thr Gln Thr Glu Val Lys Pro Ser
        35                  40                  45

Val Arg Phe Asn Leu Arg Thr Ser Lys Asp Pro Glu His Glu Gly Cys
    50                  55                  60

Tyr Leu Ser Val Gly His Ser Gln Pro Leu Glu Asp Cys Ser Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Ile Phe Glu Asn Trp Leu His Lys Leu Val Ser Ala Leu His Thr Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly His Ser
    130                 135                 140

Ile Ala Arg Met Leu Asp Trp Leu Gln Glu Lys Asp Asp Phe Ser Leu
145                 150                 155                 160

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Val Asp Ile Asn Arg Arg Leu
        195                 200                 205
```

```
Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Leu
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Arg Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Phe Asn Asp
                245                 250                 255

Val Ile Gly Ser Phe Ala Tyr Gly Thr Ile Ser Glu Met Val Lys Cys
            260                 265                 270

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Ser Arg Phe Lys
    290                 295                 300

Arg Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Asn Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Met Arg Lys Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Lys Val Tyr His Tyr Gln Leu Lys
            340                 345                 350

Val His Met Phe Ser Tyr Asn Asn Ser Gly Asp Thr Gln Pro Thr Leu
        355                 360                 365

Tyr Ile Thr Leu Tyr Gly Ser Asn Ala Asp Ser Gln Asn Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Lys Ile Glu Leu Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Met Arg Leu Thr Trp
                405                 410                 415

Glu Gly Val Ala His Ser Trp Tyr Asn Leu Trp Asn Glu Phe Arg Asn
            420                 425                 430

Tyr Leu Ser Gln Pro Ser Asn Pro Ser Arg Glu Leu Tyr Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Val Thr Phe Cys Thr
    450                 455                 460
```

```
Gln Asp Pro Thr Lys Ser Ser Ile Ser Pro Gly Gln Glu Leu Trp Phe
465                 470                 475                 480

His Lys Cys Gln Asp Gly Trp Lys Met Lys Asn Lys Thr Ser Pro Phe
                485                 490                 495

Val Asn Leu Ala Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
            500                 505                 510

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

Asp Lys Leu His Lys Pro Lys Ala Thr Gln Thr Glu Val Lys Pro Ser
        35                  40                  45

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

Asn Leu Ser Leu Gly Asp Ser Lys Leu Leu Glu Asn Cys Gly Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Met Phe Glu Ser Trp Leu His Lys Leu Val Ser Ala Leu Gln Met Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly Gln Arg
    130                 135                 140
```

```
Val Ala Gly Met Leu Asp Trp Leu Gln Glu Lys Glu Glu Phe Ser Leu
145                 150                 155                 160

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Val Asp Ile Asn Arg Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Leu
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Arg Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Phe Asn Asp
                245                 250                 255

Val Ile Gly Ser Phe Ala Tyr Gly Thr Ile Ser Glu Met Val Lys Cys
            260                 265                 270

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Ser Arg Phe Lys
    290                 295                 300

Arg Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Asn Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Met Arg Lys Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Lys Val Tyr His Tyr Gln Leu Lys
            340                 345                 350

Val His Met Phe Ser Tyr Asn Asn Ser Gly Asp Thr Gln Pro Thr Leu
        355                 360                 365

Tyr Ile Thr Leu Tyr Gly Ser Asn Ala Asp Ser Gln Asn Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Lys Ile Glu Leu Asn Ala Thr Asn Thr Phe Leu Val
```

385 390 395 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Met Arg Leu Thr Trp
405 410 415

Glu Gly Val Ala His Ser Trp Tyr Asn Leu Trp Asn Glu Phe Arg Asn
420 425 430

Tyr Leu Ser Gln Pro Ser Asn Pro Ser Arg Glu Leu Tyr Ile Arg Arg
435 440 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Leu Val Thr Phe Cys Thr
450 455 460

Gln Asp Pro Thr Lys Ser Ser Ile Ser Pro Gly Gln Glu Leu Trp Phe
465 470 475 480

His Lys Cys Gln Asp Gly Trp Lys Met Lys Asn Lys Thr Ser Pro Phe
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Val Asn Leu Ala Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
500 505 510

Gly Pro Pro Gly Pro Gln Gly
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20 25 30

Asp Glu His His Lys Pro Thr Gly Val Pro Ala Thr Ala Arg Pro Ser
35 40 45

Val Ala Phe Asn Ile Arg Thr Ser Lys Asp Pro Glu His Glu Gly Cys
50 55 60

```
Tyr Leu Ser Val Gly His Ser Gln Pro Leu Glu Asp Cys Ser Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Ile Phe Glu Asn Trp Leu His Lys Leu Val Ser Ala Leu His Thr Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly Gln Arg
    130                 135                 140

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

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Val Asp Ile Asn Arg Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Leu
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Arg Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Phe Asn Asp
                245                 250                 255

Val Ile Gly Ser Phe Ala Tyr Gly Thr Ile Ser Glu Met Val Lys Cys
            260                 265                 270

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Ser Arg Phe Lys
    290                 295                 300

Arg Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Asn Ile Gly
305                 310                 315                 320
```

```
Tyr Asn Ala Lys Lys Met Arg Lys Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Lys Val Tyr His Tyr Gln Leu Lys
            340                 345                 350

Val His Met Phe Ser Tyr Asn Asn Ser Gly Asp Thr Gln Pro Thr Leu
        355                 360                 365

Tyr Ile Thr Leu Tyr Gly Ser Asn Ala Asp Ser Gln Asn Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Lys Ile Glu Leu Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Met Arg Leu Thr Trp
                405                 410                 415

Glu Gly Val Ala His Ser Trp Tyr Asn Leu Trp Asn Glu Phe Arg Asn
            420                 425                 430

Tyr Leu Ser Gln Pro Ser Asn Pro Ser Arg Glu Leu Tyr Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Val Thr Phe Cys Thr
    450                 455                 460

Gln Asp Pro Thr Lys Ser Ser Ile Ser Pro Gly Gln Glu Leu Trp Phe
465                 470                 475                 480

His Lys Cys Gln Asp Gly Trp Lys Met Lys Asn Lys Thr Ser Pro Phe
                485                 490                 495

Val Asn Leu Ala Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
            500                 505                 510

Gly Pro Pro Gly Pro Gln Gly
        515
```

<210> 7
<211> 519
<212> PRT
<213> Rabbit

<220>
<221> PROTEIN
<222> (1)..(519)

<400> 7

```
Met Arg Arg Ser Ile Pro Leu Leu Cys Leu Trp Ser Ala Cys Tyr Cys
1               5                  10                  15

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

Gly Gly Leu Arg Thr Ala Lys Asp Gly Pro Ala Ala Ala Lys Ala Ala
        35                  40                  45

Val Arg Phe His Leu Arg Thr Ser Lys Gly Pro Glu Arg Glu Gly Cys
    50                  55                  60

Tyr Leu Ser Val Gly His Ser Gln Pro Leu Glu Asp Cys Ser Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Met Leu Glu Asn Trp Leu His Lys Leu Val Ser Ala Leu Gln Met Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Ser Thr Arg Val Val Gly Leu Ser
    130                 135                 140

Val Ala Lys Met Leu Asp Trp Leu Gln Gly Lys Asp Gly Phe Ser Leu
145                 150                 155                 160

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Phe Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Val Asp Ile His Arg Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg
    210                 215                 220

Ser Phe Gly Ile Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn Asp
```

```
                245                 250                 255

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

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Asn Arg Phe Lys
    290                 295                 300

Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Gly Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Thr Arg Asn Lys Arg Asn Thr Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Arg Val Tyr His Tyr Gln Met Lys
            340                 345                 350

Ile His Phe Phe Ser Tyr Lys Ser Val Gly Ala Ile Glu Pro Thr Phe
        355                 360                 365

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

Glu Ile Val Glu Gln Ile Gly Leu Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Ile Lys Leu Thr Trp
                405                 410                 415

Glu Gly Thr Ser Arg Ser Trp Tyr Asp Leu Trp Arg Glu Phe Arg Ser
            420                 425                 430

Tyr Leu Ser Gln Pro His Arg Pro Glu Arg Glu Leu Ser Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Arg Leu Thr Phe Cys Val
    450                 455                 460

Glu Asp Pro Glu Lys Thr Ser Ile Ala Pro Gly Gln Glu Leu Trp Phe
465                 470                 475                 480

Tyr Lys Cys Arg Asp Gly Trp Arg Met Lys Asn Glu Thr Ser Pro Thr
                485                 490                 495
```

```
Val Glu Leu Ser Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
            500                 505                 510

Gly Pro Pro Gly Pro Gln Gly
        515
```

<210> 8
<211> 519
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(519)

<400> 8

```
Met Arg Asn Thr Val Phe Leu Leu Gly Phe Trp Ser Val Tyr Cys Tyr
1               5                  10                  15

Phe Pro Ala Gly Ser Ile Thr Thr Leu Arg Pro Glu Gly Ser Leu Arg
            20                  25                  30

Asp Glu His His Lys Pro Thr Gly Val Pro Ala Thr Ala Arg Pro Ser
        35                  40                  45

Val Ala Phe Asn Ile Arg Thr Ser Lys Asp Pro Glu Gln Glu Gly Cys
    50                  55                  60

Asn Leu Ser Leu Gly Asp Ser Lys Leu Leu Glu Asn Cys Gly Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Met Phe Glu Ser Trp Leu His Lys Leu Val Ser Ala Leu Gln Met Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly Gln Arg
    130                 135                 140

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

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175
```

```
Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Val Asp Ile Asn Arg Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Leu
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Arg Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Phe Asn Asp
                245                 250                 255

Val Ile Gly Ser Phe Ala Tyr Gly Thr Ile Ser Glu Met Val Lys Cys
            260                 265                 270

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Ser Arg Phe Lys
    290                 295                 300

Arg Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Asn Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Met Arg Lys Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Lys Val Tyr His Tyr Gln Leu Lys
            340                 345                 350

Val His Met Phe Ser Tyr Asn Asn Ser Gly Asp Thr Gln Pro Thr Leu
        355                 360                 365

Tyr Ile Thr Leu Tyr Gly Ser Asn Ala Asp Ser Gln Asn Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Lys Ile Glu Leu Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Met Arg Leu Thr Trp
                405                 410                 415

Glu Gly Val Ala His Ser Trp Tyr Asn Leu Trp Asn Glu Phe Arg Asn
            420                 425                 430
```

```
Tyr Leu Ser Gln Pro Ser Asn Pro Ser Arg Glu Leu Tyr Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Val Thr Phe Cys Thr
    450                 455                 460

Gln Asp Pro Thr Lys Ser Ser Ile Ser Pro Gly Gln Glu Leu Trp Phe
465                 470                 475                 480

His Lys Cys Gln Asp Gly Trp Lys Met Lys Asn Lys Thr Ser Pro Phe
                485                 490                 495

Val Asn Leu Ala Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
            500                 505                 510

Gly Pro Pro Gly Pro Gln Gly
        515
```

<210> 9
<211> 120
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(120)

<400> 9

```
Gln Ile His Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu
1               5                   10                  15

Thr Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
            20                  25                  30

Gly Met Asn Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
        35                  40                  45

Gly Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Ala Gly Asp Phe
    50                  55                  60

Lys Gly Arg Phe Ala Phe Ser Leu Glu Thr Ser Ala Ser Thr Ala Tyr
65                  70                  75                  80

Leu Gln Ile Asn Asn Leu Lys Asn Glu Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95

Ala Arg Arg Gly Tyr Tyr Gly Arg Arg Tyr Phe Asp Val Trp Gly Thr
```

100 105 110

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 10
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 10

Asn Tyr Gly Met Asn
1 5

<210> 11
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 11

Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Ala Gly Asp Phe Lys
1 5 10 15

Gly

<210> 12
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 12

Arg Gly Tyr Tyr Gly Arg Arg Tyr Phe Asp Val
1 5 10

<210> 13
<211> 111
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(111)

<400> 13

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp
20 25 30

Val Asp Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
35 40 45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Leu Ala Ser Gly Ile Pro Ala
50 55 60

Arg Phe Ser Gly Gly Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
65 70 75 80

Pro Val Glu Glu Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln Thr Ile
85 90 95

Glu Asp Pro Pro Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 14
<211> 15
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(15)

<400> 14

Lys Ala Ser Gln Ser Val Asp Tyr Asp Val Asp Ser Tyr Met His
1 5 10 15

<210> 15
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 15

```
Ala Ala Ser Asn Leu Ala Ser
1               5


<210>  16
<211>  9
<212>  PRT
<213>  mouse


<220>
<221>  PROTEIN
<222>  (1)..(9)

<400>  16

Gln Gln Thr Ile Glu Asp Pro Pro Thr
1               5


<210>  17
<211>  120
<212>  PRT
<213>  mouse


<220>
<221>  PROTEIN
<222>  (1)..(120)

<400>  17

Gln Ile Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu
1               5                   10                  15


Thr Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
            20                  25                  30


Gly Met Asn Trp Val Lys Gln Ala Pro Gly Lys Asp Leu Lys Trp Met
        35                  40                  45


Gly Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Ala Asp Asp Phe
    50                  55                  60


Lys Gly Arg Phe Ala Phe Ser Leu Glu Thr Ser Ala Ser Thr Ala Tyr
65                  70                  75                  80


Leu Gln Ile Asn Asn Leu Lys Asn Glu Asp Thr Ala Thr Tyr Phe Cys
                85                  90                  95


Ala Arg Phe Ser Tyr Tyr Gly Arg His Tyr Phe Asp Tyr Trp Gly Gln
            100                 105                 110


Gly Thr Thr Leu Thr Val Ser Ser
        115                 120
```

<210> 18
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 18

Asn Tyr Gly Met Asn
1 5

<210> 19
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 19

Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Ala Asp Asp Phe Lys
1 5 10 15

Gly

<210> 20
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 20

Phe Ser Tyr Tyr Gly Arg His Tyr Phe Asp Tyr
1 5 10

<210> 21
<211> 112
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(112)

<400> 21

```
Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1               5                  10                  15

Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp
            20                  25                  30

Gly Asp Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
        35                  40                  45

Gln Leu Leu Ile Tyr Ala Ala Ser Asn Leu Gly Ser Gly Ile Pro Ala
    50                  55                  60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
65                  70                  75                  80

Pro Val Glu Glu Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Thr
                85                  90                  95

Asp Asp Pro Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110
```

<210> 22
<211> 15
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(15)

<400> 22

```
Lys Ala Ser Gln Ser Val Asp Tyr Asp Gly Asp Ser Tyr Met Asn
1               5                  10                  15
```

<210> 23
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 23

```
Ala Ala Ser Asn Leu Gly Ser
1               5
```

<210> 24
<211> 10
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 24

His Gln Ser Thr Asp Asp Pro Pro Trp Thr
1 5 10

<210> 25
<211> 120
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(120)

<400> 25

Gln Ile Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Gly Met Asn Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Ala Asp Asp Phe
50 55 60

Lys Gly Arg Phe Ala Phe Ser Leu Glu Thr Ser Ala Ser Thr Ala Tyr
65 70 75 80

Leu Gln Ile Asn Asn Phe Lys Asn Glu Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Phe Ser Tyr Tyr Gly Arg His Tyr Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Ala Leu Thr Ala Ser Ser
115 120

<210> 26
<211> 5
<212> PRT

<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 26

Asn Tyr Gly Met Asn
1 5

<210> 27
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 27

Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Ala Asp Asp Phe Lys
1 5 10 15

Gly

<210> 28
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 28

Phe Ser Tyr Tyr Gly Arg His Tyr Phe Asp Tyr
1 5 10

<210> 29
<211> 112
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(112)

<400> 29

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

```
Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp
            20                  25                  30

Gly Asp Ser Tyr Met Asn Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
        35                  40                  45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Leu Lys Ser Gly Ile Pro Ala
    50                  55                  60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
65                  70                  75                  80

Pro Val Glu Glu Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Thr Thr
                85                  90                  95

Asp Asp Pro Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110
```

<210> 30
<211> 15
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(15)

<400> 30

```
Lys Ala Ser Gln Ser Val Asp Tyr Asp Gly Asp Ser Tyr Met Asn
1               5                   10                  15
```

<210> 31
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 31

```
Ala Ala Ser Asn Leu Lys Ser
1               5
```

<210> 32
<211> 10
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 32

Gln Gln Thr Thr Asp Asp Pro Pro Trp Thr
1 5 10

<210> 33
<211> 120
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(120)

<400> 33

Gln Ile Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly Glu
1 5 10 15

Thr Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asn Tyr
20 25 30

Gly Met Asn Trp Val Lys Gln Ala Pro Gly Lys Gly Leu Lys Trp Met
35 40 45

Gly Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Thr Asp Asp Phe
50 55 60

Lys Gly Arg Phe Ala Phe Ser Leu Glu Thr Ser Ala Ser Thr Ala Phe
65 70 75 80

Leu Gln Ile Asn Asn Leu Lys Asn Glu Asp Thr Ala Thr Tyr Phe Cys
85 90 95

Ala Arg Phe Ser Tyr Tyr Gly Arg His Tyr Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Leu Thr Val Ser Ser
115 120

<210> 34
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN

<222> (1)..(5)

<400> 34

Asn Tyr Gly Met Asn
1 5

<210> 35
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 35

Trp Ile Asn Thr Tyr Ser Gly Val Pro Thr Tyr Thr Asp Asp Phe Lys
1 5 10 15

Gly

<210> 36
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 36

Phe Ser Tyr Tyr Gly Arg His Tyr Phe Asp Tyr
1 5 10

<210> 37
<211> 112
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(112)

<400> 37

Asp Ile Val Leu Thr Gln Ser Pro Ala Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Lys Ala Ser Gln Ser Val Asp Tyr Asp
20 25 30

```
Gly Asp Ser Tyr Met His Trp Tyr Gln Gln Lys Pro Gly Gln Pro Pro
        35                  40                  45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Leu Glu Ser Gly Ile Pro Ala
    50                  55                  60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Asn Ile His
65                  70                  75                  80

Pro Val Glu Glu Glu Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Thr Asn
                85                  90                  95

Asp Asp Pro Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110
```

<210> 38
<211> 15
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(15)

<400> 38

```
Lys Ala Ser Gln Ser Val Asp Tyr Asp Gly Asp Ser Tyr Met His
1               5                   10                  15
```

<210> 39
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 39

```
Ala Ala Ser Asn Leu Glu Ser
1               5
```

<210> 40
<211> 10
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 40

Gln Gln Thr Asn Asp Asp Pro Pro Trp Thr
1 5 10

<210> 41
<211> 119
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(119)

<400> 41

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Leu Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Tyr
20 25 30

Thr Met His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
35 40 45

Gly Gly Ile Asn Pro Tyr Tyr Gly Gly Thr Thr Tyr Asn Glu Lys Phe
50 55 60

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

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

Ala Lys Gly Asp Tyr Tyr Gly Gly Ser Tyr Asn Tyr Trp Gly Gln Gly
100 105 110

Thr Thr Leu Thr Val Ser Ser
115

<210> 42
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 42

Asp Tyr Thr Met His

1 5

<210> 43
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 43

Gly Ile Asn Pro Tyr Tyr Gly Gly Thr Thr Tyr Asn Glu Lys Phe Lys
1 5 10 15

Asp

<210> 44
<211> 10
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 44

Gly Asp Tyr Tyr Gly Gly Ser Tyr Asn Tyr
1 5 10

<210> 45
<211> 107
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(107)

<400> 45

Asp Ile Val Leu Thr Gln Ser Leu Ala Thr Leu Ser Val Thr Pro Gly
1 5 10 15

Asp Ser Val Ser Leu Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Ser
20 25 30

Leu His Trp Tyr Gln Gln Lys Ser His Glu Ser Pro Arg Leu Leu Ile
35 40 45

```
Lys Tyr Ala Ser Gln Ser Ile Ser Gly Ile Pro Ser Arg Phe Ser Gly
    50                  55                  60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Ser Ile Asn Ser Val Glu Thr
65                  70                  75                  80

Glu Asp Phe Gly Met Tyr Phe Cys Gln Gln Ser Asn Ser Trp Pro Tyr
                85                  90                  95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105
```

<210> 46
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 46

```
Arg Ala Ser Gln Asp Ile Ser Asn Ser Leu His
1               5                   10
```

<210> 47
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 47

```
Tyr Ala Ser Gln Ser Ile Ser
1               5
```

<210> 48
<211> 9
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(9)

<400> 48

```
Gln Gln Ser Asn Ser Trp Pro Tyr Thr
1               5
```

<210> 49
<211> 119
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(119)

<400> 49

```
Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Leu Lys Pro Gly Ala
1               5                  10                  15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
            20                  25                  30

Thr Met His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
        35                  40                  45

Gly Ser Ile Asn Pro Tyr Tyr Gly Gly Thr Ser Tyr Asn Glu Lys Phe
    50                  55                  60

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

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

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

Thr Thr Leu Thr Val Ser Ser
        115
```

<210> 50
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 50

```
Glu Tyr Thr Met His
1               5
```

<210> 51
<211> 17

<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 51

Ser Ile Asn Pro Tyr Tyr Gly Gly Thr Ser Tyr Asn Glu Lys Phe Lys
1 5 10 15

Asp

<210> 52
<211> 10
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 52

Tyr Gly Asn Tyr Val Gly Tyr Phe Asp Tyr
1 5 10

<210> 53
<211> 106
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(106)

<400> 53

Glu Asn Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Leu Gly
1 5 10 15

Glu Lys Val Thr Met Ser Cys Arg Ala Ser Ser Ser Val His Tyr Met
20 25 30

Tyr Trp Tyr Gln Gln Lys Ser Asp Ala Ser Pro Lys Leu Trp Ile Tyr
35 40 45

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

Gly Ser Gly Asn Ser Tyr Ser Leu Thr Ile Ser Ser Met Glu Gly Glu

65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Phe Thr Ser Ser Pro Tyr Thr
85 90 95

Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 54
<211> 10
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 54

Arg Ala Ser Ser Ser Val His Tyr Met Tyr
1 5 10

<210> 55
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 55

Tyr Thr Ser Asn Leu Ala Pro
1 5

<210> 56
<211> 9
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(9)

<400> 56

Gln Gln Phe Thr Ser Ser Pro Tyr Thr
1 5

<210> 57
<211> 120
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(120)

<400> 57

Glu Val Gln Leu Gln Gln Ser Gly Pro Glu Leu Leu Lys Pro Gly Ala
1 5 10 15

Ser Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Asp Asn
20 25 30

Thr Ile His Trp Val Lys Gln Ser His Gly Lys Ser Leu Glu Trp Ile
35 40 45

Gly His Ile Asn Pro Tyr Tyr Gly Gly Thr Asn Asn Asn Glu Lys Phe
50 55 60

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

Met Glu Leu Arg Ser Leu Thr Ser Glu Asp Ser Ala Ile Tyr Tyr Cys
85 90 95

Ala Arg Lys Gly Ile Tyr Tyr Ser Ser Pro Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Leu Thr Val Ser Ser
115 120

<210> 58
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 58

Asp Asn Thr Ile His
1 5

<210> 59
<211> 17
<212> PRT
<213> mouse

<220>

<221> PROTEIN
<222> (1)..(17)

<400> 59

His Ile Asn Pro Tyr Tyr Gly Gly Thr Asn Asn Asn Glu Lys Phe Lys
1 5 10 15

Asp

<210> 60
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 60

Lys Gly Ile Tyr Tyr Ser Ser Pro Phe Asp Tyr
1 5 10

<210> 61
<211> 107
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(107)

<400> 61

Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Asn Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Lys Pro Asp Gly Thr Val Lys Leu Leu Ile
35 40 45

Ser Tyr Thr Ser Lys Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Arg
65 70 75 80

Glu Asp Phe Ala Thr Tyr Phe Cys Gln Gln Gly Asn Thr Leu Pro Phe
85 90 95

Thr Phe Gly Ser Gly Thr Asn Leu Glu Ile Lys
100 105

<210> 62
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 62

Arg Ala Ser Gln Asp Ile Asn Asn Tyr Leu Asn
1 5 10

<210> 63
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 63

Tyr Thr Ser Lys Leu His Ser
1 5

<210> 64
<211> 9
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(9)

<400> 64

Gln Gln Gly Asn Thr Leu Pro Phe Thr
1 5

<210> 65
<211> 122
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(122)

<400> 65

```
Asp Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1               5                  10                  15

Ser Leu Lys Leu Ser Cys Thr Ala Ser Gly Phe Thr Phe Ser Gly Tyr
            20                  25                  30

Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Leu Val
        35                  40                  45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65                  70                  75                  80

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

Thr Arg Leu Gly Gly Arg Asn His Asp Tyr Trp Tyr Phe Asp Val Trp
            100                 105                 110

Gly Thr Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 66
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 66

```
Gly Tyr Thr Met Ser
1               5
```

<210> 67
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 67

```
Glu Ile Ser Phe Ala Arg Asp Arg Ala Phe Tyr Pro Asp Thr Val Lys
1               5                   10                  15

Gly


<210>  68
<211>  13
<212>  PRT
<213>  mouse


<220>
<221>  PROTEIN
<222>  (1)..(13)

<400>  68

Leu Gly Gly Arg Asn His Asp Tyr Trp Tyr Phe Asp Val
1               5                   10


<210>  69
<211>  111
<212>  PRT
<213>  mouse


<220>
<221>  PROTEIN
<222>  (1)..(111)

<400>  69

Asp Ile Val Leu Thr Gln Ser Pro Thr Ser Leu Ala Val Ser Pro Gly
1               5                   10                  15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Glu Tyr Tyr
            20                  25                  30

Gly Thr Ser Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro
        35                  40                  45

Gln Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Ala
    50                  55                  60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ser Leu Asn Ile His
65                  70                  75                  80

Pro Val Glu Glu Asp Asp Ile Ala Val Tyr Phe Cys Gln Gln Ser Trp
                85                  90                  95

Lys Val Pro Phe Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys
            100                 105                 110
```

<210> 70
<211> 15
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(15)

<400> 70

Arg Ala Ser Glu Ser Val Glu Tyr Tyr Gly Thr Ser Leu Met Gln
1 5 10 15

<210> 71
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 71

Ala Ala Ser Asn Val Glu Ser
1 5

<210> 72
<211> 9
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(9)

<400> 72

Gln Gln Ser Trp Lys Val Pro Phe Thr
1 5

<210> 73
<211> 122
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(122)

<400> 73

Glu Val Lys Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

```
Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
            20                  25                  30

Thr Met Ser Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Leu Val
        35                  40                  45

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

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Thr Leu Tyr
65                  70                  75                  80

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

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

Gly Thr Gly Thr Thr Val Thr Val Ser Ser
        115                 120
```

<210> 74
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 74

```
Ser Tyr Thr Met Ser
1               5
```

<210> 75
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 75

```
Glu Ile Ser Phe Thr Arg Ser Arg Ala Phe Tyr Pro Asp Thr Val Lys
1               5                   10                  15

Gly
```

<210> 76
<211> 13
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(13)

<400> 76

Leu Gly Gly Asn Asn Tyr Asp Tyr Trp Tyr Phe Asp Val
1 5 10

<210> 77
<211> 111
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(15)

<400> 77

Asp Ile Val Leu Thr Gln Ser Pro Thr Ser Leu Ala Val Ser Leu Gly
1 5 10 15

Gln Arg Ala Thr Ile Ser Cys Arg Ala Ser Glu Ser Val Glu Tyr Tyr
20 25 30

Gly Thr Ser Leu Met Gln Trp Tyr Gln Gln Lys Pro Gly Gln Arg Pro
35 40 45

Lys Leu Leu Ile Tyr Ala Ala Ser Asn Val Glu Ser Gly Val Pro Ala
50 55 60

Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Ser Leu Asn Ile His
65 70 75 80

Pro Val Glu Glu Asp Asp Ile Ala Met Tyr Phe Cys Gln Gln Ser Trp
85 90 95

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

<210> 78
<211> 15
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(15)

<400> 78

Arg Ala Ser Glu Ser Val Glu Tyr Tyr Gly Thr Ser Leu Met Gln
1 5 10 15

<210> 79
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 79

Ala Ala Ser Asn Val Glu Ser
1 5

<210> 80
<211> 9
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(9)

<400> 80

Gln Gln Ser Trp Lys Val Pro Phe Thr
1 5

<210> 81
<211> 119
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(119)

<400> 81

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
1 5 10 15

Ser Val Arg Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Lys Tyr
20 25 30

```
Thr Ile His Trp Val Lys Gln Arg Ser Gly Gln Gly Leu Glu Trp Ile
        35                  40                  45

Gly Trp Phe Tyr Pro Gly Ser Asp Ser Ile Lys Tyr Asn Glu Lys Phe
    50                  55                  60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Arg Thr Val Tyr
65                  70                  75                  80

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

Ala Arg His Glu Glu Tyr Thr Asn Ser Leu Ala Tyr Trp Gly Gln Gly
            100                 105                 110

Thr Leu Val Thr Val Ser Ala
        115
```

<210> 82
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 82

```
Lys Tyr Thr Ile His
1               5
```

<210> 83
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 83

```
Trp Phe Tyr Pro Gly Ser Asp Ser Ile Lys Tyr Asn Glu Lys Phe Lys
1               5                   10                  15

Asp
```

<210> 84
<211> 10

<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 84

His Glu Glu Tyr Thr Asn Ser Leu Ala Tyr
1 5 10

<210> 85
<211> 107
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(107)

<400> 85

Asp Ile Gln Met Thr Gln Thr Thr Ser Ser Leu Ser Ala Ser Leu Gly
1 5 10 15

Asp Arg Val Thr Ile Ser Cys Arg Ala Ser Gln Asp Ile Ser Asn Tyr
20 25 30

Leu Asn Trp Tyr Gln Gln Gln Pro Asp Gly Thr Val Lys Leu Leu Ile
35 40 45

Tyr Tyr Thr Ser Arg Leu His Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Tyr Ser Leu Thr Ile Ser Asn Leu Glu Gln
65 70 75 80

Glu Asp Ile Ala Thr Tyr Phe Cys Gln Gln Gly Tyr Thr Leu Pro Trp
85 90 95

Thr Phe Gly Gly Gly Thr Asn Leu Glu Ile Lys
100 105

<210> 86
<211> 11
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(11)

<400> 86

Arg Ala Ser Gln Asp Ile Ser Asn Tyr Leu Asn
1 5 10

<210> 87
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 87

Tyr Thr Ser Arg Leu His Ser
1 5

<210> 88
<211> 9
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(9)

<400> 88

Gln Gln Gly Tyr Thr Leu Pro Trp Thr
1 5

<210> 89
<211> 118
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(118)

<400> 89

Gln Val Gln Leu Gln Gln Pro Gly Ser Val Leu Val Arg Pro Gly Ala
1 5 10 15

Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Thr Tyr
20 25 30

Trp Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
35 40 45

```
Gly Glu Ile His Pro Tyr Ser Gly Asn Asn Asn Asn Glu Lys Phe
    50                  55                  60

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

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

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

Leu Val Thr Val Ser Ala
        115
```

<210> 90
<211> 5
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(5)

<400> 90

```
Thr Tyr Trp Met His
1               5
```

<210> 91
<211> 17
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(17)

<400> 91

```
Glu Ile His Pro Tyr Ser Gly Asn Asn Asn Asn Asn Glu Lys Phe Lys
1               5                   10                  15

Gly
```

<210> 92
<211> 9
<212> PRT
<213> mouse

<220>

<221> PROTEIN
<222> (1)..(9)

<400> 92

Tyr Asp Ser Asn Tyr Val Phe Ala Tyr
1 5

<210> 93
<211> 105
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(105)

<400> 93

Gln Ile Val Leu Thr Gln Ser Pro Ala Ile Met Ser Ala Ser Pro Gly
1 5 10 15

Glu Gly Val Thr Ile Thr Cys Ser Ala Ser Ser Ser Val Ser Tyr Met
20 25 30

His Trp Phe Gln Gln Lys Pro Gly Thr Ser Pro Lys Leu Trp Ile Tyr
35 40 45

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Arg Asp Ser Tyr Leu Thr Phe
85 90 95

Gly Ser Gly Thr Lys Leu Glu Val Lys
100 105

<210> 94
<211> 10
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(10)

<400> 94

Ser Ala Ser Ser Ser Val Ser Tyr Met His
1 5 10

<210> 95
<211> 7
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(7)

<400> 95

Ser Thr Ser Asn Leu Ala Ser
1 5

<210> 96
<211> 8
<212> PRT
<213> mouse

<220>
<221> PROTEIN
<222> (1)..(8)

<400> 96

Gln Gln Arg Asp Ser Tyr Leu Thr
1 5

<210> 97
<211> 519
<212> PRT
<213> chimera

<220>
<221> PROTEIN
<222> (1)..(519)

<400> 97

Met Ser Asn Ser Val Pro Leu Leu Cys Phe Trp Ser Leu Cys Tyr Cys
1 5 10 15

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

Asp Lys Leu His Lys Pro Lys Ala Thr Gln Thr Glu Val Lys Pro Ser
35 40 45

Val Arg Phe Asn Leu Arg Thr Ser Lys Asp Pro Glu His Glu Gly Cys
50 55 60

Tyr Leu Ser Val Gly His Ser Gln Pro Leu Glu Asp Cys Ser Phe Asn

65 70 75 80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
85 90 95

Ile Phe Glu Asn Trp Leu His Lys Leu Val Ser Ala Leu His Thr Arg
100 105 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
115 120 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly His Ser
130 135 140

Ile Ala Arg Met Leu Asp Trp Leu Gln Glu Lys Asp Asp Phe Ser Leu
145 150 155 160

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
165 170 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
180 185 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Ala Asp Ile His Lys Arg Leu
195 200 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg
210 215 220

Ser Phe Gly Leu Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
225 230 235 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn Asp
245 250 255

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

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Asn Arg Phe Lys
290 295 300

Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Asn Ile Gly
305 310 315 320

```
Tyr Asn Ala Lys Lys Met Arg Lys Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Lys Val Tyr His Tyr Gln Leu Lys
            340                 345                 350

Val His Met Phe Ser Tyr Asn Asn Ser Gly Asp Thr Gln Pro Thr Leu
        355                 360                 365

Tyr Ile Thr Leu Tyr Gly Ser Asn Ala Asp Ser Gln Asn Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Lys Ile Glu Leu Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Met Arg Leu Thr Trp
                405                 410                 415

Glu Gly Val Ala His Ser Trp Tyr Asn Leu Trp Asn Glu Phe Arg Asn
            420                 425                 430

Tyr Leu Ser Gln Pro Ser Asn Pro Ser Arg Glu Leu Tyr Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Val Thr Phe Cys Thr
    450                 455                 460

Gln Asp Pro Thr Lys Ser Ser Ile Ser Pro Gly Gln Glu Leu Trp Phe
465                 470                 475                 480

His Lys Cys Gln Asp Gly Trp Lys Met Lys Asn Lys Thr Ser Pro Phe
                485                 490                 495

Val Asn Leu Ala Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
            500                 505                 510

Gly Pro Pro Gly Pro Gln Gly
        515
```

<210> 98
<211> 519
<212> PRT
<213> chimera

<220>
<221> PROTEIN
<222> (1)..(519)

<400> 98

```
Met Arg Asn Thr Val Phe Leu Leu Gly Phe Trp Ser Val Tyr Cys Tyr
1               5                  10                  15

Phe Pro Ala Gly Ser Ile Thr Thr Leu Arg Pro Glu Gly Ser Leu Arg
            20                  25                  30

Asp Glu His His Lys Pro Thr Gly Val Pro Ala Thr Ala Arg Pro Ser
        35                  40                  45

Val Ala Phe Asn Ile Arg Thr Ser Lys Asp Pro Glu Gln Glu Gly Cys
    50                  55                  60

Asn Leu Ser Leu Gly Asp Ser Lys Leu Leu Glu Asn Cys Gly Phe Asn
65                  70                  75                  80

Met Thr Ala Lys Thr Phe Phe Ile Ile His Gly Trp Thr Met Ser Gly
                85                  90                  95

Met Phe Glu Ser Trp Leu His Lys Leu Val Ser Ala Leu Gln Met Arg
            100                 105                 110

Glu Lys Asp Ala Asn Val Val Val Val Asp Trp Leu Pro Leu Ala His
        115                 120                 125

Gln Leu Tyr Thr Asp Ala Val Asn Asn Thr Arg Val Val Gly Gln Arg
    130                 135                 140

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

Gly Asn Val His Leu Ile Gly Tyr Ser Leu Gly Ala His Val Ala Gly
                165                 170                 175

Tyr Ala Gly Asn Phe Val Lys Gly Thr Val Gly Arg Ile Thr Gly Leu
            180                 185                 190

Asp Pro Ala Gly Pro Met Phe Glu Gly Ala Asp Ile His Lys Arg Leu
        195                 200                 205

Ser Pro Asp Asp Ala Asp Phe Val Asp Val Leu His Thr Tyr Thr Arg
    210                 215                 220

Ser Phe Gly Leu Ser Ile Gly Ile Gln Met Pro Val Gly His Ile Asp
225                 230                 235                 240

Ile Tyr Pro Asn Gly Gly Asp Phe Gln Pro Gly Cys Gly Leu Asn Asp
                245                 250                 255
```

```
Val Leu Gly Ser Ile Ala Tyr Gly Thr Ile Thr Glu Val Val Lys Cys
            260                 265                 270

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

Asp Lys Pro Ser Phe Ala Phe Gln Cys Thr Asp Ser Asn Arg Phe Lys
    290                 295                 300

Lys Gly Ile Cys Leu Ser Cys Arg Lys Asn Arg Cys Asn Ser Ile Gly
305                 310                 315                 320

Tyr Asn Ala Lys Lys Met Arg Asn Lys Arg Asn Ser Lys Met Tyr Leu
                325                 330                 335

Lys Thr Arg Ala Gly Met Pro Phe Arg Val Tyr His Tyr Gln Met Lys
            340                 345                 350

Ile His Val Phe Ser Tyr Lys Asn Met Gly Glu Ile Glu Pro Thr Phe
        355                 360                 365

Tyr Val Thr Leu Tyr Gly Thr Asn Ala Asp Ser Gln Thr Leu Pro Leu
    370                 375                 380

Glu Ile Val Glu Arg Ile Glu Gln Asn Ala Thr Asn Thr Phe Leu Val
385                 390                 395                 400

Tyr Thr Glu Glu Asp Leu Gly Asp Leu Leu Lys Ile Gln Leu Thr Trp
                405                 410                 415

Glu Gly Ala Ser Gln Ser Trp Tyr Asn Leu Trp Lys Glu Phe Arg Ser
            420                 425                 430

Tyr Leu Ser Gln Pro Arg Asn Pro Gly Arg Glu Leu Asn Ile Arg Arg
        435                 440                 445

Ile Arg Val Lys Ser Gly Glu Thr Gln Arg Lys Leu Thr Phe Cys Thr
    450                 455                 460

Glu Asp Pro Glu Asn Thr Ser Ile Ser Pro Gly Gln Glu Leu Trp Phe
465                 470                 475                 480

Arg Lys Cys Arg Asp Gly Trp Arg Met Lys Asn Glu Thr Ser Pro Thr
                485                 490                 495

Val Glu Leu Pro Gly Glu Pro Gly Asp Asp Gly Pro Ser Gly Ala Glu
```

```
            500                 505                 510

Gly Pro Pro Gly Pro Gln Gly
        515


<210>  99
<211>  116
<212>  PRT
<213>  Mus musculus


<220>
<221>  PROTEIN
<222>  (1)..(116)

<400>  99

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Met Lys Pro Gly Ala
1               5                   10                  15


Ser Val Lys Ile Ser Cys Lys Ala Thr Gly Tyr Thr Phe Ser Thr Tyr
            20                  25                  30


Trp Ile Ala Trp Val Lys Gln Arg Pro Gly His Gly Leu Glu Trp Ile
        35                  40                  45


Gly Glu Ile Leu Pro Gly Ser Ala Lys Thr Lys Tyr Asn Lys Lys Phe
    50                  55                  60


Lys Gly Lys Ala Thr Phe Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65                  70                  75                  80


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


Ala Val Tyr Asp Tyr Gly Ala Asp Tyr Trp Gly Gln Gly Thr Ser Val
            100                 105                 110


Thr Val Ser Ser
        115


<210>  100
<211>  5
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<213>  Mus musculus


<220>
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<400>  100
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Thr Tyr Trp Ile Ala
1 5

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<400> 101

Glu Ile Leu Pro Gly Ser Ala Lys Thr Lys Tyr Asn Lys Lys Phe Lys
1 5 10 15

Gly

<210> 102
<211> 7
<212> PRT
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<400> 102

Tyr Asp Tyr Gly Ala Asp Tyr
1 5

<210> 103
<211> 107
<212> PRT
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<220>
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<400> 103

Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
1 5 10 15

Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Tyr Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
35 40 45

```
Tyr Ser Ala Ser Tyr Arg Phe Thr Gly Val Pro Asp Arg Phe Thr Gly
    50                  55                  60

Ser Gly Ala Gly Thr Glu Phe Thr Phe Thr Ile Asn Ser Val Gln Ala
65                  70                  75                  80

Glu Asp Leu Ala Val Tyr Tyr Cys Gln Gln His Tyr Ser Ile Pro Arg
                85                  90                  95

Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
            100                 105
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<211> 11
<212> PRT
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<400> 104

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Lys Ala Ser Gln Asp Val Tyr Thr Ala Val Ala
1               5                   10
```

<210> 105
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<400> 105

```
Ser Ala Ser Tyr Arg Phe Thr
1               5
```

<210> 106
<211> 9
<212> PRT
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<220>
<221> PROTEIN
<222> (1)..(9)

<400> 106

```
Gln Gln His Tyr Ser Ile Pro Arg Thr
1               5
```