SEQUENCE LISTING

<110> Regeneron Pharmaceuticals, Inc.

<120> Fucosylation-Deficient Cells

<130> 0851-WO

<140> To be assigned
<141> Filed herewith

<150> 61/183,400
<151> 2009-06-02

<150> 61/348,858
<151> 2010-05-27

<160> 14

<170> FastSEQ for Windows Version 4.0

<210> 1
<211> 321
<212> PRT
<213> Cricetulus griseus

<400> 1

```
Met Gly Glu Pro Gln Gly Ser Arg Arg Ile Leu Val Thr Gly Gly Ser
 1               5                  10                  15
Gly Leu Val Gly Arg Ala Ile Gln Lys Val Val Ala Asp Gly Ala Gly
            20                  25                  30
Leu Pro Gly Glu Glu Trp Val Phe Val Ser Ser Lys Asp Ala Asp Leu
        35                  40                  45
Thr Asp Ala Ala Gln Thr Gln Ala Leu Phe Gln Lys Val Gln Pro Thr
    50                  55                  60
His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile
65                  70                  75                  80
Lys Tyr Asn Leu Asp Phe Trp Arg Lys Asn Val His Ile Asn Asp Asn
                85                  90                  95
Val Leu His Ser Ala Phe Glu Val Gly Thr Arg Lys Val Val Ser Cys
            100                 105                 110
Leu Ser Thr Cys Ile Phe Pro Asp Lys Thr Thr Tyr Pro Ile Asp Glu
        115                 120                 125
Thr Met Ile His Asn Gly Pro Pro His Ser Ser Asn Phe Gly Tyr Ser
    130                 135                 140
Tyr Ala Lys Arg Met Ile Asp Val Gln Asn Arg Ala Tyr Phe Gln Gln
145                 150                 155                 160
His Gly Cys Thr Phe Thr Ala Val Ile Pro Thr Asn Val Phe Gly Pro
                165                 170                 175
His Asp Asn Phe Asn Ile Glu Asp Gly His Val Leu Pro Gly Leu Ile
            180                 185                 190
His Lys Val His Leu Ala Lys Ser Asn Gly Ser Ala Leu Thr Val Trp
        195                 200                 205
Gly Thr Gly Lys Pro Arg Arg Gln Phe Ile Tyr Ser Leu Asp Leu Ala
    210                 215                 220
Arg Leu Phe Ile Trp Val Leu Arg Glu Tyr Asn Glu Val Glu Pro Ile
225                 230                 235                 240
Ile Leu Ser Val Gly Glu Glu Asp Glu Val Ser Ile Lys Glu Ala Ala
```

```
                245                 250                 255
Glu Ala Val Val Glu Ala Met Asp Phe Cys Gly Glu Val Thr Phe Asp
            260                 265                 270
Ser Thr Lys Ser Asp Gly Gln Tyr Lys Lys Thr Ala Ser Asn Gly Lys
        275                 280                 285
Leu Arg Ala Tyr Leu Pro Asp Phe Arg Phe Thr Pro Phe Lys Gln Ala
    290                 295                 300
Val Lys Glu Thr Cys Ala Trp Phe Thr Asp Asn Tyr Glu Gln Ala Arg
305                 310                 315                 320
Lys
```

<210> 2
<211> 321
<212> PRT
<213> Artificial Sequence

<220>
<223> synthetic

<400> 2

```
Met Gly Glu Pro Gln Gly Ser Arg Arg Ile Leu Val Thr Gly Gly Ser
 1               5                  10                  15
Gly Leu Val Gly Arg Ala Ile Gln Lys Val Val Ala Asp Gly Ala Gly
            20                  25                  30
Leu Pro Gly Glu Glu Trp Val Phe Val Ser Ser Lys Asp Ala Asp Leu
        35                  40                  45
Thr Asp Ala Ala Gln Thr Gln Ala Leu Phe Gln Lys Val Gln Pro Thr
    50                  55                  60
His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile
65                  70                  75                  80
Lys Tyr Asn Leu Asp Phe Trp Arg Lys Lys Val His Ile Asn Asp Asn
                85                  90                  95
Val Leu His Ser Ala Phe Glu Val Gly Thr Arg Lys Val Val Ser Cys
            100                 105                 110
Leu Ser Thr Cys Ile Phe Pro Asp Lys Thr Thr Tyr Pro Ile Asp Glu
        115                 120                 125
Thr Met Ile His Asn Gly Pro Pro His Ser Ser Asn Phe Gly Tyr Ser
    130                 135                 140
Tyr Ala Lys Arg Met Ile Asp Val Gln Asn Arg Ala Tyr Phe Gln Gln
145                 150                 155                 160
His Gly Cys Thr Phe Thr Ala Val Ile Pro Thr Asn Val Phe Gly Pro
                165                 170                 175
His Asp Asn Phe Asn Ile Glu Asp Gly His Val Leu Pro Gly Leu Ile
            180                 185                 190
His Lys Val His Leu Ala Lys Ser Asn Gly Ser Ala Leu Thr Val Trp
        195                 200                 205
Gly Thr Gly Lys Pro Arg Arg Gln Phe Ile Tyr Ser Leu Asp Leu Ala
    210                 215                 220
Arg Leu Phe Ile Trp Val Leu Arg Glu Tyr Asn Glu Val Glu Pro Ile
225                 230                 235                 240
Ile Leu Ser Val Gly Glu Glu Asp Glu Val Ser Ile Lys Glu Ala Ala
                245                 250                 255
Glu Ala Val Val Glu Ala Met Asp Phe Cys Gly Glu Val Thr Phe Asp
            260                 265                 270
Ser Thr Lys Ser Asp Gly Gln Tyr Lys Lys Thr Ala Ser Asn Gly Lys
        275                 280                 285
Ser Arg Ala Tyr Leu Pro Asp Phe Arg Phe Thr Pro Phe Lys Gln Ala
    290                 295                 300
Val Lys Glu Thr Cys Ala Trp Phe Thr Asp Asn Tyr Glu Gln Ala Arg
```

305 310 315 320
Lys

<210> 3
<211> 321
<212> PRT
<213> Macacca mulatta

<400> 3
Met Gly Glu Pro Gln Gly Ser Met Arg Ile Leu Val Thr Gly Gly Ser
1 5 10 15
Gly Leu Val Gly Lys Ala Ile Gln Lys Val Val Ala Asp Gly Ala Gly
20 25 30
Leu Pro Gly Glu Asp Trp Val Phe Val Ser Ser Lys Asp Ala Asp Leu
35 40 45
Thr Asp Ala Ala Gln Thr Arg Ala Leu Phe Glu Lys Val Arg Pro Thr
50 55 60
His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile
65 70 75 80
Lys Tyr Asn Leu Asp Phe Trp Arg Lys Asn Val His Ile Asn Asp Asn
85 90 95
Val Leu His Ser Ala Phe Glu Val Gly Ala Cys Lys Val Val Ser Cys
100 105 110
Leu Ser Thr Cys Ile Phe Pro Asp Lys Thr Thr Tyr Pro Ile Asp Glu
115 120 125
Thr Met Ile His Asn Gly Pro Pro His Ser Ser Asn Phe Gly Tyr Ser
130 135 140
Tyr Ala Lys Arg Met Ile Asp Val Gln Asn Arg Ala Tyr Phe Gln Gln
145 150 155 160
Tyr Gly Cys Thr Phe Thr Ala Val Ile Pro Thr Asn Val Phe Gly Pro
165 170 175
His Asp Asn Phe Asn Ile Glu Asp Gly His Val Leu Pro Gly Leu Ile
180 185 190
His Lys Val His Leu Ala Lys Ser Ser Ser Ser Ala Leu Thr Val Trp
195 200 205
Gly Thr Gly Lys Pro Arg Arg Gln Phe Ile Tyr Ser Leu Asp Leu Ala
210 215 220
Gln Leu Phe Ile Trp Val Leu Arg Glu Tyr Asn Glu Val Glu Pro Ile
225 230 235 240
Ile Leu Ser Val Gly Glu Glu Asp Glu Val Ser Ile Lys Glu Ala Ala
245 250 255
Glu Ala Val Val Glu Ala Met Asp Phe His Gly Glu Val Thr Phe Asp
260 265 270
Thr Ser Lys Ser Asp Gly Gln Phe Lys Lys Thr Ala Ser Asn Ser Lys
275 280 285
Leu Arg Thr Tyr Leu Pro Asp Phe Arg Phe Thr Pro Phe Lys Gln Ala
290 295 300
Val Lys Glu Thr Cys Ala Trp Phe Thr Asp Asn Tyr Glu Gln Ala Arg
305 310 315 320
Lys

<210> 4
<211> 321
<212> PRT
<213> Homo sapiens

<400> 4

```
Met Gly Glu Pro Gln Gly Ser Met Arg Ile Leu Val Thr Gly Gly Ser
 1               5                  10                  15
Gly Leu Val Gly Lys Ala Ile Gln Lys Val Val Ala Asp Gly Ala Gly
            20                  25                  30
Leu Pro Gly Glu Asp Trp Val Phe Val Ser Ser Lys Asp Ala Asp Leu
        35                  40                  45
Thr Asp Thr Ala Gln Thr Arg Ala Leu Phe Glu Lys Val Gln Pro Thr
    50                  55                  60
His Val Ile His Leu Ala Ala Met Val Gly Gly Leu Phe Arg Asn Ile
65                  70                  75                  80
Lys Tyr Asn Leu Asp Phe Trp Arg Lys Asn Val His Met Asn Asp Asn
                85                  90                  95
Val Leu His Ser Ala Phe Glu Val Gly Ala Arg Lys Val Val Ser Cys
            100                 105                 110
Leu Ser Thr Cys Ile Phe Pro Asp Lys Thr Thr Tyr Pro Ile Asp Glu
        115                 120                 125
Thr Met Ile His Asn Gly Pro Pro His Asn Ser Asn Phe Gly Tyr Ser
    130                 135                 140
Tyr Ala Lys Arg Met Ile Asp Val Gln Asn Arg Ala Tyr Phe Gln Gln
145                 150                 155                 160
Tyr Gly Cys Thr Phe Thr Ala Val Ile Pro Thr Asn Val Phe Gly Pro
                165                 170                 175
His Asp Asn Phe Asn Ile Glu Asp Gly His Val Leu Pro Gly Leu Ile
            180                 185                 190
His Lys Val His Leu Ala Lys Ser Ser Gly Ser Ala Leu Thr Val Trp
        195                 200                 205
Gly Thr Gly Asn Pro Arg Arg Gln Phe Ile Tyr Ser Leu Asp Leu Ala
    210                 215                 220
Gln Leu Phe Ile Trp Val Leu Arg Glu Tyr Asn Glu Val Glu Pro Ile
225                 230                 235                 240
Ile Leu Ser Val Gly Glu Glu Asp Glu Val Ser Ile Lys Glu Ala Ala
                245                 250                 255
Glu Ala Val Val Glu Ala Met Asp Phe His Gly Glu Val Thr Phe Asp
            260                 265                 270
Thr Thr Lys Ser Asp Gly Gln Phe Lys Lys Thr Ala Ser Asn Ser Lys
        275                 280                 285
Leu Arg Thr Tyr Leu Pro Asp Phe Arg Phe Thr Pro Phe Lys Gln Ala
    290                 295                 300
Val Lys Glu Thr Cys Ala Trp Phe Thr Asp Asn Tyr Glu Gln Ala Arg
305                 310                 315                 320
Lys
```

<210> 5
<211> 321
<212> PRT
<213> Mus musculus

<400> 5

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

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

<210> 6
<211> 321
<212> PRT
<213> Rattus norvegicus

<400> 6

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

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

<210> 7
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 7
ctacaatctt ggtgcccaga gc 22

<210> 8
<211> 21
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 8
tccagttcag tttctgctgc g 21

<210> 9
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 9
ttccctgaca agaccaccta tcc 23

<210> 10
<211> 22
<212> DNA
<213> Artificial Sequence

<220>

<223> synthetic

<400> 10
tagttgtcgg tgaaccaggc ac 22

<210> 11
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 11
gatgaggaca gcaggaacaa gc 22

<210> 12
<211> 23
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 12
agcactcttc tcaccctctt tgg 23

<210> 13
<211> 24
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 13
agccaagggt aagtaaggag gacg 24

<210> 14
<211> 22
<212> DNA
<213> Artificial Sequence

<220>
<223> synthetic

<400> 14
ttgtagacag cctccatcct cg 22