SEQUENCE LISTING

<110> UCB Biopharma SPRL

<120> Anti-FcRn Antibodies

<130> PF0022

<150> GB1508180.5
<151> 2015-05-13

<160> 94

<170> PatentIn version 3.5

<210> 1
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<223> CDRH1

<400> 1

Gly Phe Ser Leu Ser Thr Tyr Gly Val Gly Val Gly
1 5 10

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<220>
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<400> 2

Asn Ile Trp Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser Leu Glu Asn
1 5 10 15

<210> 3
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<400> 3

Thr Pro Ala Tyr Tyr Gly Ser His Pro Pro Phe Asp Tyr
1 5 10

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<400> 4

Arg Thr Ser Glu Asp Ile Tyr Thr Asn Leu Ala

1 5 10

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<400> 5

Val Ala Lys Thr Leu Gln Asp
1 5

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<400> 6

Leu Gln Gly Phe Lys Phe Pro Trp Thr
1 5

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<400> 7

Val Ala Lys Thr Leu Gln Glu
1 5

<210> 8
<211> 107
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<213> Artificial Sequence

<220>
<223> 1638 gL7 V-region

<400> 8

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

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

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

Tyr Val Ala Lys Thr Leu Gln Glu Gly Val Pro Ser Arg Phe Ser Gly

50 55 60

Ser Gly Ser Gly Thr His Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

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

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

<210> 9
<211> 123
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<213> Artificial Sequence

<220>
<223> 1638 gH33 V-region

<400> 9

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

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

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

Trp Leu Ala Asn Ile Trp Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Thr Pro Ala Tyr Tyr Gly Ser His Pro Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 10
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> 1638 gL7 Light chain

<400> 10

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

1 5 10 15

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

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

Tyr Val Ala Lys Thr Leu Gln Glu Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr His Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
100 105 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115 120 125

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

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

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
165 170 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
180 185 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
195 200 205

Phe Asn Arg Gly Glu Cys
210

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<212> DNA
<213> Artificial Sequence

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<223> DNA encoding gL7 Light chain

<400> 11
gatatccaga tgacccagag tccaagcagt ctctccgcca gcgtaggcga tcgtgtgact 60

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ggcaaagtgc cgaaactgct gatctacgtc gcgaaaaccc tccaggaagg tgtaccgtct 180

cgcttttccg gctctggtag cggtactcac tacaccctga ccatctcttc cctccagccg 240

gaagatgttg ctacctacta ttgcctccag ggcttcaaat tcccgtggac tttcggtggc 300

ggcacgaaag tggaaatcaa acggaccgtg gccgctccct ccgtgttcat cttcccaccc 360

tccgacgagc agctgaagtc cggcaccgcc tccgtcgtgt gcctgctgaa caacttctac 420

ccccgcgagg ccaaggtgca gtggaaggtg gacaacgccc tgcagtccgg caactcccag 480

gaatccgtca ccgagcagga ctccaaggac agcacctact ccctgtcctc caccctgacc 540

ctgtccaagg ccgactacga gaagcacaag gtgtacgcct gcgaagtgac ccaccagggc 600

ctgtccagcc ccgtgaccaa gtccttcaac cggggcgagt gc 642

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<211> 490
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<213> Artificial Sequence

<220>
<223> 1638 gH33 Fab-dsscFv (1735h5.hFab-scFv.768) heavy chain amino acid sequence

<400> 12

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

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

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

Trp Leu Ala Asn Ile Trp Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Thr Pro Ala Tyr Tyr Gly Ser His Pro Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

```
Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
                165                 170                 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
            180                 185                 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
        195                 200                 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
    210                 215                 220

Ser Cys Ser Gly Gly Gly Gly Thr Gly Gly Gly Gly Ser Glu Val Gln
225                 230                 235                 240

Leu Leu Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg
                245                 250                 255

Leu Ser Cys Ala Val Ser Gly Ile Asp Leu Ser Asn Tyr Ala Ile Asn
            260                 265                 270

Trp Val Arg Gln Ala Pro Gly Lys Cys Leu Glu Trp Ile Gly Ile Ile
        275                 280                 285

Trp Ala Ser Gly Thr Thr Phe Tyr Ala Thr Trp Ala Lys Gly Arg Phe
    290                 295                 300

Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Val Tyr Leu Gln Met Asn
305                 310                 315                 320

Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Thr Val
                325                 330                 335

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

Leu Val Thr Val Ser Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
        355                 360                 365

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Asp Ile Gln Met Thr Gln
    370                 375                 380

Ser Pro Ser Ser Val Ser Ala Ser Val Gly Asp Arg Val Thr Ile Thr
385                 390                 395                 400

Cys Gln Ser Ser Pro Ser Val Trp Ser Asn Phe Leu Ser Trp Tyr Gln
                405                 410                 415

Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr Glu Ala Ser Lys
            420                 425                 430
```

Leu Thr Ser Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr
435 440 445

Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr
450 455 460

Tyr Tyr Cys Gly Gly Gly Tyr Ser Ser Ile Ser Asp Thr Thr Phe Gly
465 470 475 480

Cys Gly Thr Lys Val Glu Ile Lys Arg Thr
485 490

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

<220>
<223> DNA encoding 1638 gH33 Fab-dsscfv (1735h5.hFab-scFv.768) Heavy chain

<400> 13
gaggttcagc tggtcgagtc tggaggcggg cttgtccagc ctggagggag cctgcgtctc 60

tcttgtgcag cgtccggctt ctctctgtct acctacggcg ttggtgttgg ttgggtacgt 120

caggctccag gtaaaggtct ggaatggctc gcaaacatct ggtgggacga cgataaacgc 180

tacaacccgt ccctggagaa ccgcttcacc attagccgtg ataacgcgaa aaactccgcg 240

tatctccaga tgaactccct gcgtgccgaa gacacggctg tgtactattg cgcgcgcact 300

ccggcgtact atggctctca cccaccgttt gattactggg gtcagggtac aatggttacc 360

gtctcgtctg cctccaccaa gggcccatcg gtcttccccc tggcaccctc ctccaagagc 420

acctctgggg gcacagcggc cctgggctgc ctggtcaagg actacttccc cgaaccagtg 480

acggtgtcgt ggaactcagg tgccctgacc agcggcgttc acaccttccc ggctgtccta 540

cagtcttcag gactctactc cctgagcagc gtggtgaccg tgccctccag cagcttgggc 600

acccagacct acatctgcaa cgtgaatcac aagcccagca acaccaaggt cgataagaaa 660

gttgagccca aatcttgtag tggaggtggg ggcaccggtg gaggtggcag cgaggttcaa 720

ctgcttgagt ctggaggagg cctagtccag cctggaggga gcctgcgtct ctcttgtgca 780

gtaagcggca tcgacctgag caattacgcc atcaactggg tgagacaagc tccggggaag 840

tgtttagaat ggatcggtat aatatgggcc agtgggacga ccttttatgc tacatgggcg 900

aaaggaaggt ttacaattag ccgggacaat agcaaaaaca ccgtgtatct ccaaatgaac 960

tccttgcgag cagaggacac ggcggtgtac tattgtgctc gcactgtccc aggttatagc 1020

actgcaccct acttcgatct gtggggacaa gggaccctgg tgactgtttc aagtggcgga 1080

gggggtagtg gaggggtgg ctctgggggt ggcggaagcg gtggcggggg ttctgacata 1140

caaatgactc agtctccttc atcggtatcc gcgtccgttg gcgatagggt gactattaca 1200

tgtcaaagct ctcctagcgt ctggagcaat tttctatcct ggtatcaaca gaaaccgggg 1260

aaggctccaa aacttctgat ttatgaagcc tcgaaactca ccagtggagt tccgtcaaga 1320

ttcagtggct ctggatcagg gacagacttc acgttgacaa tcagttcgct gcaaccagag 1380

gactttgcga cctactattg tggtggaggt tacagtagca taagtgatac gacatttggg 1440

tgcggtacta aggtggaaat caaacgtacc 1470

<210> 14
<211> 226
<212> PRT
<213> Artificial Sequence

<220>
<223> 1638 gH33 Heavy chain

<400> 14

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

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

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

Trp Leu Ala Asn Ile Trp Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

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

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

Cys Ala Arg Thr Pro Ala Tyr Tyr Gly Ser His Pro Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys
225

<210> 15
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Albumin binding dsscFv heavy chain

<400> 15

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

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

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

Gly Ile Ile Trp Ala Ser Gly Thr Thr Phe Tyr Ala Thr Trp Ala Lys
50 55 60

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

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 16
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> Albumin binding dsscFv light chain

<400> 16

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

Asp Arg Val Thr Ile Thr Cys Gln Ser Ser Pro Ser Val Trp Ser Asn
20 25 30

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

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

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln
65 70 75 80

Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gly Gly Gly Tyr Ser Ser Ile
85 90 95

Ser Asp Thr Thr Phe Gly Cys Gly Thr Lys Val Glu Ile Lys Arg Thr
100 105 110

<210> 17
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Cyno FcRn alpha chain extracellular sequence

<400> 17

Ala Glu Ser His Leu Ser Leu Leu Tyr His Leu Thr Ala Val Ser Ser
1 5 10 15

Pro Ala Pro Gly Thr Pro Ala Phe Trp Val Ser Gly Trp Leu Gly Pro
20 25 30

Gln Gln Tyr Leu Ser Tyr Asp Ser Leu Arg Gly Gln Ala Glu Pro Cys
35 40 45

Gly Ala Trp Val Trp Glu Asn Gln Val Ser Trp Tyr Trp Glu Lys Glu
50 55 60

Thr Thr Asp Leu Arg Ile Lys Glu Lys Leu Phe Leu Glu Ala Phe Lys
65 70 75 80

Ala Leu Gly Gly Lys Gly Pro Tyr Thr Leu Gln Gly Leu Leu Gly Cys
85 90 95

Glu Leu Ser Pro Asp Asn Thr Ser Val Pro Thr Ala Lys Phe Ala Leu
100 105 110

Asn Gly Glu Glu Phe Met Asn Phe Asp Leu Lys Gln Gly Thr Trp Gly
115 120 125

Gly Asp Trp Pro Glu Ala Leu Ala Ile Ser Gln Arg Trp Gln Gln Gln

130 135 140

Asp Lys Ala Ala Asn Lys Glu Leu Thr Phe Leu Leu Phe Ser Cys Pro
145 150 155 160

His Arg Leu Arg Glu His Leu Glu Arg Gly Arg Gly Asn Leu Glu Trp
165 170 175

Lys Glu Pro Pro Ser Met Arg Leu Lys Ala Arg Pro Gly Asn Pro Gly
180 185 190

Phe Ser Val Leu Thr Cys Ser Ala Phe Ser Phe Tyr Pro Pro Glu Leu
195 200 205

Gln Leu Arg Phe Leu Arg Asn Gly Met Ala Ala Gly Thr Gly Gln Gly
210 215 220

Asp Phe Gly Pro Asn Ser Asp Gly Ser Phe His Ala Ser Ser Ser Leu
225 230 235 240

Thr Val Lys Ser Gly Asp Glu His His Tyr Cys Cys Ile Val Gln His
245 250 255

Ala Gly Leu Ala Gln Pro Leu Arg Val Glu Leu Glu Thr Pro Ala Lys
260 265 270

Ser Ser

<210> 18
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<223> Cyno B2-microglobulin

<400> 18

Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Pro Glu
1 5 10 15

Asn Gly Lys Pro Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
20 25 30

Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Lys Met Gly Lys
35 40 45

Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu
50 55 60

Leu Tyr Tyr Thr Glu Phe Thr Pro Asn Glu Lys Asp Glu Tyr Ala Cys
65 70 75 80

Arg Val Asn His Val Thr Leu Ser Gly Pro Arg Thr Val Lys Trp Asp
85 90 95

Arg Asp Met

<210> 19
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Human IGKV1-27 JK4 acceptor framework

<400> 19

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

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

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

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

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

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

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

<210> 20
<211> 114
<212> PRT
<213> Artificial Sequence

<220>
<223> Human IGHV3-7 JH3 acceptor framework

<400> 20

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

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

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

Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
50 55 60

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

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

Ala Arg Asp Ala Phe Asp Val Trp Gly Gln Gly Thr Met Val Thr Val
100 105 110

Ser Ser

<210> 21
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> Human FcRn alpha chain extracellular sequence

<400> 21

Ala Glu Ser His Leu Ser Leu Leu Tyr His Leu Thr Ala Val Ser Ser
1 5 10 15

Pro Ala Pro Gly Thr Pro Ala Phe Trp Val Ser Gly Trp Leu Gly Pro
20 25 30

Gln Gln Tyr Leu Ser Tyr Asn Ser Leu Arg Gly Glu Ala Glu Pro Cys
35 40 45

Gly Ala Trp Val Trp Glu Asn Gln Val Ser Trp Tyr Trp Glu Lys Glu
50 55 60

Thr Thr Asp Leu Arg Ile Lys Glu Lys Leu Phe Leu Glu Ala Phe Lys
65 70 75 80

Ala Leu Gly Gly Lys Gly Pro Tyr Thr Leu Gln Gly Leu Leu Gly Cys
85 90 95

Glu Leu Gly Pro Asp Asn Thr Ser Val Pro Thr Ala Lys Phe Ala Leu
100 105 110

Asn Gly Glu Glu Phe Met Asn Phe Asp Leu Lys Gln Gly Thr Trp Gly
115 120 125

Gly Asp Trp Pro Glu Ala Leu Ala Ile Ser Gln Arg Trp Gln Gln Gln
130 135 140

Asp Lys Ala Ala Asn Lys Glu Leu Thr Phe Leu Leu Phe Ser Cys Pro

145 150 155 160

His Arg Leu Arg Glu His Leu Glu Arg Gly Arg Gly Asn Leu Glu Trp
165 170 175

Lys Glu Pro Pro Ser Met Arg Leu Lys Ala Arg Pro Ser Ser Pro Gly
180 185 190

Phe Ser Val Leu Thr Cys Ser Ala Phe Ser Phe Tyr Pro Pro Glu Leu
195 200 205

Gln Leu Arg Phe Leu Arg Asn Gly Leu Ala Ala Gly Thr Gly Gln Gly
210 215 220

Asp Phe Gly Pro Asn Ser Asp Gly Ser Phe His Ala Ser Ser Ser Leu
225 230 235 240

Thr Val Lys Ser Gly Asp Glu His His Tyr Cys Cys Ile Val Gln His
245 250 255

Ala Gly Leu Ala Gln Pro Leu Arg Val Glu Leu Glu Ser Pro Ala Lys
260 265 270

Ser Ser

<210> 22
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<223> Rat B2M

<400> 22

Ile Gln Lys Thr Pro Gln Ile Gln Val Tyr Ser Arg His Pro Pro Glu
1 5 10 15

Asn Gly Lys Pro Asn Phe Leu Asn Cys Tyr Val Ser Gln Phe His Pro
20 25 30

Pro Gln Ile Glu Ile Glu Leu Leu Lys Asn Gly Lys Lys Ile Pro Asn
35 40 45

Ile Glu Met Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Ile
50 55 60

Leu Ala His Thr Glu Phe Thr Pro Thr Glu Thr Asp Val Tyr Ala Cys
65 70 75 80

Arg Val Lys His Val Thr Leu Lys Glu Pro Lys Thr Val Thr Trp Asp
85 90 95

Arg Asp Met

<210> 23
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Human B2M including signal sequence

<400> 23

Met Ser Arg Ser Val Ala Leu Ala Val Leu Ala Leu Leu Ser Leu Ser
1 5 10 15

Gly Leu Glu Ala Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg
20 25 30

His Pro Ala Glu Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser
35 40 45

Gly Phe His Pro Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu
50 55 60

Arg Ile Glu Lys Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp
65 70 75 80

Ser Phe Tyr Leu Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp
85 90 95

Glu Tyr Ala Cys Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile
100 105 110

Val Lys Trp Asp Arg Asp Met
115

<210> 24
<211> 99
<212> PRT
<213> Artificial Sequence

<220>
<223> Human B2-microglobulin

<400> 24

Ile Gln Arg Thr Pro Lys Ile Gln Val Tyr Ser Arg His Pro Ala Glu
1 5 10 15

Asn Gly Lys Ser Asn Phe Leu Asn Cys Tyr Val Ser Gly Phe His Pro
20 25 30

Ser Asp Ile Glu Val Asp Leu Leu Lys Asn Gly Glu Arg Ile Glu Lys
35 40 45

Val Glu His Ser Asp Leu Ser Phe Ser Lys Asp Trp Ser Phe Tyr Leu
50 55 60

Leu Tyr Tyr Thr Glu Phe Thr Pro Thr Glu Lys Asp Glu Tyr Ala Cys
65 70 75 80

Arg Val Asn His Val Thr Leu Ser Gln Pro Lys Ile Val Lys Trp Asp
85 90 95

Arg Asp Met

<210> 25
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> 1638gL2 V

<400> 25

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

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

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

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

Ser Gly Ser Gly Thr His Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

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

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

<210> 26
<211> 214
<212> PRT
<213> Artificial Sequence

<220>
<223> 1638 gL2 light chain (V + constant)

<400> 26

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

```
Asp Arg Val Thr Ile Thr Cys Arg Thr Ser Glu Asp Ile Tyr Thr Asn
            20                  25                  30

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

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

Ser Gly Ser Gly Thr His Tyr Thr Leu Thr Ile Ser Ser Leu Gln Pro
65                  70                  75                  80

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
            100                 105                 110

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
        115                 120                 125

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

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

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
                165                 170                 175

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
            180                 185                 190

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
        195                 200                 205

Phe Asn Arg Gly Glu Cys
    210
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<210> 27
<211> 123
<212> PRT
<213> Artificial Sequence

<220>
<223> 1638gH2 V-region

<400> 27

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

Ser Leu Arg Leu Ser Cys Ala Phe Ser Gly Phe Ser Leu Ser Thr Tyr
```

20 25 30

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

Trp Leu Ala Asn Ile Trp Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

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

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

Cys Val Arg Thr Pro Ala Tyr Tyr Gly Ser His Pro Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
115 120

<210> 28
<211> 226
<212> PRT
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<220>
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<400> 28

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

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

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

Trp Leu Ala Asn Ile Trp Trp Asp Asp Asp Lys Arg Tyr Asn Pro Ser
50 55 60

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

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

Cys Val Arg Thr Pro Ala Tyr Tyr Gly Ser His Pro Pro Phe Asp Tyr
100 105 110

Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115 120 125

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly
130 135 140

Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145 150 155 160

Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165 170 175

Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val
180 185 190

Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val
195 200 205

Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys
210 215 220

Ser Cys
225

<210> 29
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<212> PRT
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<220>
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<400> 29

Gly Gly Gly Gly Ser
1 5

<210> 30
<211> 20
<212> PRT
<213> Artificial Sequence

<220>
<223> linker

<400> 30

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly
1 5 10 15

Gly Gly Gly Ser
20

<210> 31
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> linker

<400> 31

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

Gly Gly Gly Gly Ser
20

<210> 32
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> linker

<400> 32

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Thr Gly Gly Gly Gly Ser
1 5 10 15

<210> 33
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> linker

<400> 33

Ser Gly Gly Gly Gly Thr Gly Gly Gly Gly Ser
1 5 10

<210> 34
<211> 8
<212> PRT
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<220>
<223> Hinge linker

<400> 34

Asp Lys Thr His Thr Cys Ala Ala
1 5

<210> 35
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Hinge linker

<400> 35

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
1 5 10

<210> 36

<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 36

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Thr Cys Pro Pro Cys
1 5 10 15

Pro Ala

<210> 37
<211> 25
<212> PRT
<213> Artificial Sequence

<220>
<223> Hinge linker

<400> 37

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Thr Cys Pro Pro Cys
1 5 10 15

Pro Ala Thr Cys Pro Pro Cys Pro Ala
20 25

<210> 38
<211> 30
<212> PRT
<213> Artificial Sequence

<220>
<223> Hinge linker

<400> 38

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Gly Lys Pro Thr Leu
1 5 10 15

Tyr Asn Ser Leu Val Met Ser Asp Thr Ala Gly Thr Cys Tyr
20 25 30

<210> 39
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
<223> Hinge linker

<400> 39

Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Gly Lys Pro Thr His
1 5 10 15

Val Asn Val Ser Val Val Met Ala Glu Val Asp Gly Thr Cys Tyr

20 25 30

<210> 40
<211> 15
<212> PRT
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<220>
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<400> 40

Asp Lys Thr His Thr Cys Cys Val Glu Cys Pro Pro Cys Pro Ala
1 5 10 15

<210> 41
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
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<400> 41

Asp Lys Thr His Thr Cys Pro Arg Cys Pro Glu Pro Lys Ser Cys Asp
1 5 10 15

Thr Pro Pro Pro Cys Pro Arg Cys Pro Ala
20 25

<210> 42
<211> 11
<212> PRT
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<220>
<223> Hinge linker

<400> 42

Asp Lys Thr His Thr Cys Pro Ser Cys Pro Ala
1 5 10

<210> 43
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 43

Ser Gly Gly Gly Gly Ser Glu
1 5

<210> 44
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
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<400> 44

Asp Lys Thr His Thr Ser
1   5

<210> 45
<211> 6
<212> PRT
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<220>
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<400> 45

Ser Gly Gly Gly Gly Ser
1   5

<210> 46
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
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<400> 46

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1   5   10

<210> 47
<211> 16
<212> PRT
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<220>
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<400> 47

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1   5   10   15

<210> 48
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
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<400> 48

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1   5   10   15

Gly Gly Gly Gly Ser
            20

<210> 49
<211> 26
<212> PRT
<213> Artificial Sequence

<220>
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<400> 49

Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
1 5 10 15

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
20 25

<210> 50
<211> 11
<212> PRT
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<220>
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<400> 50

Ala Ala Ala Gly Ser Gly Gly Ala Ser Ala Ser
1 5 10

<210> 51
<211> 16
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<220>
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<220>
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<222> (7)..(7)
<223> Xaa can be any naturally occurring amino acid

<400> 51

Ala Ala Ala Gly Ser Gly Xaa Gly Gly Gly Ser Gly Ala Ser Ala Ser
1 5 10 15

<210> 52
<211> 21
<212> PRT
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<220>
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<220>

<221> misc_feature
<222> (12)..(12)
<223> Xaa can be any naturally occurring amino acid

<400> 52

Ala Ala Ala Gly Ser Gly Xaa Gly Gly Gly Ser Xaa Gly Gly Gly Ser
1 5 10 15

Gly Ala Ser Ala Ser
20

<210> 53
<211> 26
<212> PRT
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<220>
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<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (17)..(17)
<223> Xaa can be any naturally occurring amino acid

<400> 53

Ala Ala Ala Gly Ser Gly Xaa Gly Gly Gly Ser Xaa Gly Gly Gly Ser
1 5 10 15

Xaa Gly Gly Gly Ser Gly Ala Ser Ala Ser
20 25

<210> 54
<211> 31
<212> PRT
<213> Artificial Sequence

<220>
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<220>
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<223> Xaa can be any naturally occurring amino acid

<220>
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<223> Xaa can be any naturally occurring amino acid

<220>

<221> misc_feature
<222> (17)..(17)
<223> Xaa can be any naturally occurring amino acid

<220>
<221> misc_feature
<222> (22)..(22)
<223> Xaa can be any naturally occurring amino acid

<400> 54

Ala Ala Ala Gly Ser Gly Xaa Gly Gly Gly Ser Xaa Gly Gly Gly Ser
1 5 10 15

Xaa Gly Gly Gly Ser Xaa Gly Gly Gly Ser Gly Ala Ser Ala Ser
20 25 30

<210> 55
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
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<220>
<221> misc_feature
<222> (7)..(7)
<223> Xaa can be any naturally occurring amino acid

<400> 55

Ala Ala Ala Gly Ser Gly Xaa Ser Gly Ala Ser Ala Ser
1 5 10

<210> 56
<211> 28
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 56

Pro Gly Gly Asn Arg Gly Thr Thr Thr Thr Arg Arg Pro Ala Thr Thr
1 5 10 15

Thr Gly Ser Ser Pro Gly Pro Thr Gln Ser His Tyr
20 25

<210> 57
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 57

Ala Thr Thr Thr Gly Ser Ser Pro Gly Pro Thr

1 5 10

<210> 58
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 58

Ala Thr Thr Thr Gly Ser
1 5

<210> 59
<211> 21
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 59

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

Ser His Lys Ser Pro
20

<210> 60
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 60

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

<210> 61
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 61

Gly Gly Gly Gly Ile Ala Pro Ser Met Val Gly Gly Gly Gly Ser
1 5 10 15

<210> 62
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 62

Gly Gly Gly Gly Lys Val Glu Gly Ala Gly Gly Gly Gly Gly Ser
1   5   10   15

<210> 63
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 63

Gly Gly Gly Gly Ser Met Lys Ser His Asp Gly Gly Gly Gly Ser
1   5   10   15

<210> 64
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 64

Gly Gly Gly Gly Asn Leu Ile Thr Ile Val Gly Gly Gly Gly Ser
1   5   10   15

<210> 65
<211> 15
<212> PRT
<213> Artificial Sequence

<220>
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<400> 65

Gly Gly Gly Gly Val Val Pro Ser Leu Pro Gly Gly Gly Gly Ser
1   5   10   15

<210> 66
<211> 12
<212> PRT
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<220>
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<400> 66

Gly Gly Glu Lys Ser Ile Pro Gly Gly Gly Gly Ser
1   5   10

<210> 67
<211> 18
<212> PRT

<213> Artificial Sequence

<220>
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<400> 67

Arg Pro Leu Ser Tyr Arg Pro Pro Phe Pro Phe Gly Phe Pro Ser Val
1 5 10 15

Arg Pro

<210> 68
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 68

Tyr Pro Arg Ser Ile Tyr Ile Arg Arg Arg His Pro Ser Pro Ser Leu
1 5 10 15

Thr Thr

<210> 69
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 69

Thr Pro Ser His Leu Ser His Ile Leu Pro Ser Phe Gly Leu Pro Thr
1 5 10 15

Phe Asn

<210> 70
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 70

Arg Pro Val Ser Pro Phe Thr Phe Pro Arg Leu Ser Asn Ser Trp Leu
1 5 10 15

Pro Ala

<210> 71
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 71

Ser Pro Ala Ala His Phe Pro Arg Ser Ile Pro Arg Pro Gly Pro Ile
1 5 10 15

Arg Thr

<210> 72
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 72

Ala Pro Gly Pro Ser Ala Pro Ser His Arg Ser Leu Pro Ser Arg Ala
1 5 10 15

Phe Gly

<210> 73
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 73

Pro Arg Asn Ser Ile His Phe Leu His Pro Leu Leu Val Ala Pro Leu
1 5 10 15

Gly Ala

<210> 74
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 74

Met Pro Ser Leu Ser Gly Val Leu Gln Val Arg Tyr Leu Ser Pro Pro
1 5 10 15

Asp Leu

<210> 75
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 75

Ser Pro Gln Tyr Pro Ser Pro Leu Thr Leu Thr Leu Pro Pro His Pro
1 5 10 15

Ser Leu

<210> 76
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 76

Asn Pro Ser Leu Asn Pro Pro Ser Tyr Leu His Arg Ala Pro Ser Arg
1 5 10 15

Ile Ser

<210> 77
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 77

Leu Pro Trp Arg Thr Ser Leu Leu Pro Ser Leu Pro Leu Arg Arg Arg
1 5 10 15

Pro

<210> 78
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 78

Pro Pro Leu Phe Ala Lys Gly Pro Val Gly Leu Leu Ser Arg Ser Phe
1 5 10 15

Pro Pro

<210> 79
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
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<400> 79

Val Pro Pro Ala Pro Val Val Ser Leu Arg Ser Ala His Ala Arg Pro
1 5 10 15

Pro Tyr

<210> 80
<211> 17
<212> PRT
<213> Artificial Sequence

<220>
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<400> 80

Leu Arg Pro Thr Pro Pro Arg Val Arg Ser Tyr Thr Cys Cys Pro Thr
1 5 10 15

Pro

<210> 81
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 81

Pro Asn Val Ala His Val Leu Pro Leu Leu Thr Val Pro Trp Asp Asn
1 5 10 15

Leu Arg

<210> 82
<211> 18
<212> PRT
<213> Artificial Sequence

<220>
<223> Flexible linker

<400> 82

Cys Asn Pro Leu Leu Pro Leu Cys Ala Arg Ser Pro Ala Val Arg Thr
1   5   10   15

Phe Pro

<210> 83
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide sequence

<400> 83

Gly Ala Pro Ala Pro Ala Ala Pro Ala Pro Ala
1   5   10

<210> 84
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> peptide sequence

<400> 84

Pro Pro Pro Pro
1

<210> 85
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> CDRH1 sequence of antibody 645

<400> 85

Gly Ile Asp Leu Ser Asn Tyr Ala Ile Asn
1   5   10

<210> 86
<211> 16
<212> PRT
<213> Artificial Sequence

<220>
<223> CDRH2 sequence of antibody 645

<400> 86

Ile Ile Trp Ala Ser Gly Thr Thr Phe Tyr Ala Thr Trp Ala Lys Gly
1   5   10   15

<210> 87
<211> 13
<212> PRT
<213> Artificial Sequence

<220>
<223> CDRH3 sequences of antibody 645

<400> 87

Thr Val Pro Gly Tyr Ser Thr Ala Pro Tyr Phe Asp Leu
1 5 10

<210> 88
<211> 12
<212> PRT
<213> Artificial Sequence

<220>
<223> CDRL1 sequence of antibody 645

<400> 88

Gln Ser Ser Pro Ser Val Trp Ser Asn Phe Leu Ser
1 5 10

<210> 89
<211> 7
<212> PRT
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<220>
<223> CDRL2 sequences of antibody 645

<400> 89

Glu Ala Ser Lys Leu Thr Ser
1 5

<210> 90
<211> 11
<212> PRT
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<220>
<223> CDRL3 sequence of antibody 645

<400> 90

Gly Gly Gly Tyr Ser Ser Ile Ser Asp Thr Thr
1 5 10

<210> 91
<211> 112
<212> PRT
<213> Artificial Sequence

<220>
<223> 1519 gL20 V-region

<400> 91

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

1 5 10 15

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

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

Pro Lys Arg Leu Ile Tyr Leu Val Ser Thr Leu Asp Ser Gly Ile Pro
50 55 60

Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65 70 75 80

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

Thr His Phe Pro His Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

<210> 92
<211> 219
<212> PRT
<213> Artificial Sequence

<220>
<223> 1519 gL20 light chain (V + constant)

<400> 92

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

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

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

Pro Lys Arg Leu Ile Tyr Leu Val Ser Thr Leu Asp Ser Gly Ile Pro
50 55 60

Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile
65 70 75 80

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

Thr His Phe Pro His Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105 110

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
115 120 125

Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
130 135 140

Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln
145 150 155 160

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
165 170 175

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu
180 185 190

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
195 200 205

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215

<210> 93
<211> 117
<212> PRT
<213> Artificial Sequence

<220>
<223> 1519 gH20 V-region

<400> 93

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

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

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

Ala Tyr Ile Asp Ser Asp Gly Asp Asn Thr Tyr Tyr Arg Asp Ser Val
50 55 60

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

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

Thr Thr Gly Ile Val Arg Pro Phe Leu Tyr Trp Gly Gln Gly Thr Leu
100 105 110

Val Thr Val Ser Ser
115

<210> 94

<211> 220
<212> PRT
<213> Artificial Sequence

<220>
<223> 1519gH20 Fab heavy chain (V + human gamma-1 CH1 no hinge)

<400> 94

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

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

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

Ala Tyr Ile Asp Ser Asp Gly Asp Asn Thr Tyr Tyr Arg Asp Ser Val
    50                  55                  60

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

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

Thr Thr Gly Ile Val Arg Pro Phe Leu Tyr Trp Gly Gln Gly Thr Leu
            100                 105                 110

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

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
    130                 135                 140

Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser
145                 150                 155                 160

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
                165                 170                 175

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
            180                 185                 190

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
        195                 200                 205

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys
    210                 215                 220
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