

SEQUENCE LISTING

<110> SuppreMol GmbH
 <120> Novel anti-Fc-gamma receptor IIB antibodies and uses thereof
 <130> 02043198PCT

 <150> EP13004094.2
 <151> 2013-08-16

 <160> 34
 <170> PatentIn version 3.5
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 <211> 113
 <212> PRT
 <213> Rattus norvegicus

<220>
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 <222> (1)..(113)
 <223> VH r8A6

<400> 1

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

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

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

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

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

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

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

Ser

<210> 2
 <211> 108
 <212> PRT
 <213> Rattus norvegicus

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<220>
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<220>
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 <222> (1)..(108)
 <223> VL r8A6

<400> 2

Asn Ile Val Met Thr Gln Ser Pro Thr Ser Met Phe Ile Ser Val Gly
 1 5 10 15

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

Val Asp Trp Phe Gln Gln Lys Thr Gly Gln Ser Pro Thr Leu Leu Ile
 35 40 45

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

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

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

Thr Phe Gly Pro Gly Thr Thr Leu Glu Leu Lys Arg
 100 105

<210> 3
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<220>
 <223> humanized antibody

<220>
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 <223> VH hu8A6

<400> 3

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

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

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

Ala Ser Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Gly Asp Ser Val
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50

55

60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr 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 Pro Gly Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
 100 105 110

Ser

<210> 4
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<220>
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<220>
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 <223> VL hu8A6

<400> 4

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

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

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

Tyr Gly Ala Ser Thr Arg Tyr Thr Gly Ile Pro Ala Arg Phe Ser Gly
 50 55 60

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

Glu Asp Phe Ala Val Tyr Tyr Cys Leu Gln Tyr Asn Asn His Pro Tyr
 85 90 95

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

<210> 5
 <211> 181
 <212> PRT
 <213> Homo sapiens

<220>
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 <222> (1)..(181)
 <223> human FcyRIIB

<400> 5

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

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

Gly Thr His Ser Pro Glu Ser Asp Ser Ile Gln Trp Phe His Asn Gly
 35 40 45

Asn Leu Ile Pro Thr His Thr Gln Pro Ser Tyr Arg Phe Lys Ala Asn
 50 55 60

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

Ser Asp Pro Val His Leu Thr Val Leu Ser Glu Trp Leu Val Leu Gln
 85 90 95

Thr Pro His Leu Glu Phe Gln Glu Gly Glu Thr Ile Val Leu Arg Cys
 100 105 110

His Ser Trp Lys Asp Lys Pro Leu Val Lys Val Thr Phe Phe Gln Asn
 115 120 125

Gly Lys Ser Lys Lys Phe Ser Arg Ser Asp Pro Asn Phe Ser Ile Pro
 130 135 140

Gln Ala Asn His Ser His Ser Gly Asp Tyr His Cys Thr Gly Asn Ile
 145 150 155 160

Gly Tyr Thr Leu Tyr Ser Ser Lys Pro Val Thr Ile Thr Val Gln Ala
 165 170 175

Pro Ser Ser Ser Pro
 180

<210> 6
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 <213> Artificial

<220>
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<220>
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<223> CH hu8A6_wt

<400> 6

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

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Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly
325

<210> 7
<211> 106
<212> PRT
<213> Artificial

<220>
<223> humanized antibody

<220>
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<222> (1)..(106)
<223> CL hu8A6_wt

<400> 7

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

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

Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
35 40 45

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
50 55 60

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

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
85 90 95

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
100 105

<210> 8
<211> 339
<212> DNA
<213> Artificial

<220>
<223> humanized antibody

<220>
<221> misc_feature
<222> (1)..(339)
<223> VH hu8A6

<400> 8
caggtgcagc tgggtggagtc tggggggaggc gtggtccagc ctgggaggtc cctgagactc 60
tcctgtgcag cctctggatt caccttcagt gactattaca tggcctgggt ccgccaggct 120
ccaggcaagg ggctggagtg ggtggcatcc atatcatagc atggaagcaa taagtactac 180
ggagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cagctgtat 240
ctgcaaatga acagcctgag agctgaggac acggctgtgt attactgtgc gagaccggga 300
gactactggg gccaaaggaac cctggtcacc gtcagctca 339

<210> 9
<211> 324
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<213> Artificial

<220>
<223> humanized antibody

<220>
<221> misc_feature
<222> (1)..(324)
<223> VL hu8A6

<400> 9
cagatagtga tgacgcagtc tccagccacc ctgtctgtgt ctccagggga aagagccacc 60
ctctcctgca gggccagtca gtccgttggc tcctatgtcg actggtacca gcagaaacct 120
ggccaggctc ccaggctcct catctatggt gcatccacca ggtacactgg tatcccagcc 180
aggttcagtg gcagtgggtc tgggacagag ttactctca ccatcagcag cctgcagtct 240
gaagattttg cagtttatta ctgtctgcag tataacaacc atccttacac ttttggccag 300
gggaccaagc tggagatcaa acgt 324

<210> 10
<211> 990
<212> DNA
<213> Artificial

<220>
<223> humanized antibody

<220>
<221> misc_feature
<222> (1)..(990)
<223> CH hu8A6_wt

<400> 10
gcctccacca agggcccatc ggtcttcccc ctggcaccct cctccaagag cacctctggg 60

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ggcacagcgg ccctgggctg cctgggtcaag gactacttcc ccgaaccggt gacgggtgtcg	120
tggaactcag gcgccctgac cagcggcgtg cacaccttcc cggctgtcct acagtcctca	180
ggactctact ccctcagcag cgtgggtgacc gtgccctcca gcagcttggg caccagacc	240
tacatctgca acgtgaatca caagcccagc aacaccaagg tggacaagaa ggttgagccc	300
aaatcttgtg acaaaactca cacatgcccc ccggtgcccag cacctgaact cctgggggga	360
ccgtcagtct tcctcttccc cccaaaaccc aaggacaccc tcatgatctc ccggaccctt	420
gaggtcacat gcgtgggtgg ggacgtgagc cacgaagacc ctgaggtcaa gttcaactgg	480
tacgtggacg gcgtggaggt gcataatgcc aagacaaagc cgcgggagga gcagtacaac	540
agcacgtacc gtgtggtcag cgtcctcacc gtcctgcacc aggactggct gaatggcaag	600
gagtacaagt gcaagggtctc caacaaagcc ctcccagccc ccatcgagaa aaccatctcc	660
aaagccaaag ggcagccccg agaaccacag gtgtacaccc tgcccccatc ccgggaggag	720
atgaccaaga accagggtcag cctgacctgc ctgggtcaaag gcttctatcc cagcgacatc	780
gccgtggagt gggagagcaa tgggcagccg gagaacaact acaagaccac gcctcccgtg	840
ctggactccg acggctcctt cttcctctac agcaagctca ccgtggacaa gagcaggtgg	900
cagcagggga acgtcttctc atgctccgtg atgcatgagg ctctgcacaa ccactacacg	960
cagaagagcc tctccctgtc tccgggttaa	990

<210> 11
 <211> 321
 <212> DNA
 <213> Artificial

<220>
 <223> humanized antibody

<220>
 <221> misc_feature
 <222> (1)..(321)
 <223> CL hu8A6_wt

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acggtggctg caccatcggt cttcatcttc ccgccatctg atgagcagtt gaaatctgga	60
actgcctctg ttgtgtgcct gctgaataac ttctatccca gagaggccaa agtacagtgg	120
aaggtggata acgccctcca atcgggtaac tcccaggaga gtgtcacaga gcaggacagc	180
aaggacagca cctacagcct cagcagcacc ctgacgctga gcaaagcaga ctacgagaaa	240
cacaaagtct acgcctgcga agtcacccat cagggcctga gctcgcccgt cacaaagagc	300
ttcaacaggg gagagtgtta g	321

<210> 12
 <211> 125
 <212> PRT
 <213> Homo sapiens

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<220>
<221> MISC_FEATURE
<222> (1)..(125)
<223> hu soluble FCyRIIA

<400> 12

Arg Phe Lys Ala Asn Asn Asn Asp Ser Gly Glu Tyr Thr Cys Gln Thr
1 5 10 15

Gly Gln Thr Ser Leu Ser Asp Pro Val His Leu Thr Val Leu Ser Glu
20 25 30

Trp Leu Val Leu Gln Thr Pro His Leu Glu Phe Gln Glu Gly Glu Thr
35 40 45

Ile Met Leu Arg Cys His Ser Trp Lys Asp Lys Pro Leu Val Lys Val
50 55 60

Thr Phe Phe Gln Asn Gly Lys Ser Gln Lys Phe Ser Arg Leu Asp Pro
65 70 75 80

Thr Phe Ser Ile Pro Gln Ala Asn His Ser His Ser Gly Asp Tyr His
85 90 95

Cys Thr Gly Asn Ile Gly Tyr Thr Leu Phe Ser Ser Lys Pro Val Thr
100 105 110

Ile Thr Val Gln Val Pro Ser Met Gly Ser Ser Ser Pro
115 120 125

<210> 13
<211> 179
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(179)
<223> soluble mutated human FCyRIIA

<400> 13

Met Ala Pro Pro Lys Ala Val Leu Lys Leu Glu Pro Pro Trp Ile Asn
1 5 10 15

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

Pro Glu Ser Asp Ser Ile Gln Trp Phe His Asn Gly Asn Leu Ile Pro
35 40 45

Thr His Thr Gln Pro Ser Tyr Arg Phe Lys Ala Asn Asn Asp Ser
50 55 60

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Gly Glu Tyr Thr Cys Gln Thr Gly Gln Thr Ser Leu Ser Asp Pro Val
65 70 75 80

His Leu Thr Val Leu Ser Glu Trp Leu Val Leu Gln Thr Pro His Leu
85 90 95

Glu Phe Gln Glu Gly Glu Thr Ile Met Leu Arg Cys His Ser Trp Lys
100 105 110

Asp Lys Pro Leu Val Lys Val Thr Phe Phe Gln Asn Gly Lys Ser Lys
115 120 125

Lys Phe Ser Arg Ser Asp Pro Asn Phe Ser Ile Pro Gln Ala Asn His
130 135 140

Ser His Ser Gly Asp Tyr His Cys Thr Gly Asn Ile Gly Tyr Thr Leu
145 150 155 160

Phe Ser Ser Lys Pro Val Thr Ile Thr Val Gln Val Pro Ser Met Gly
165 170 175

Ser Ser Pro

<210> 14
<211> 5
<212> PRT
<213> artificial

<220>
<223> heavy chain CDR1 from rat antibody 8A6
<400> 14

Asp Tyr Tyr Met Ala
1 5

<210> 15
<211> 17
<212> PRT
<213> artificial

<220>
<223> heavy chain CDR2 from rat antibody 8A6
<400> 15

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

Gly

<210> 16
<211> 6
<212> PRT
<213> artificial

<220>
<223> heavy chain CDR3 from rat antibody 8A6

<400> 16

Ala Arg Pro Gly Asp Tyr
1 5

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

<220>
<223> light chain CDR1 from rat antibody 8A6

<400> 17

Lys Ala Ser Gln Asn Val Gly Thr Tyr Val Asp
1 5 10

<210> 18
<211> 7
<212> PRT
<213> artificial

<220>
<223> light chain CDR2 from rat antibody 8A6

<400> 18

Gly Ala Ser Asn Arg Tyr Thr
1 5

<210> 19
<211> 9
<212> PRT
<213> artificial

<220>
<223> light chain CDR3 from rat antibody 8A6

<400> 19

Leu Gln Tyr Asn Tyr His Pro Tyr Thr
1 5

<210> 20
<211> 5
<212> PRT
<213> artificial

<220>
<223> heavy chain CDR1 from humanized antibody 8A6

<400> 20

Asp Tyr Tyr Met Ala
1 5

<210> 21
<211> 17

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<212> PRT
<213> artificial

<220>
<223> heavy chain CDR2 from humanized antibody 8A6

<400> 21

Ser Ile Ser Tyr Asp Gly Ser Asn Lys Tyr Tyr Gly Asp Ser Val Lys
1 5 10 15

Gly

<210> 22
<211> 6
<212> PRT
<213> artificial

<220>
<223> heavy chain CDR3 from humanized antibody 8A6

<400> 22

Ala Arg Pro Gly Asp Tyr
1 5

<210> 23
<211> 11
<212> PRT
<213> artificial

<220>
<223> light chain CDR1 from humanized antibody 8A6

<400> 23

Arg Ala Ser Gln Ser Val Gly Ser Tyr Val Asp
1 5 10

<210> 24
<211> 7
<212> PRT
<213> artificial

<220>
<223> light chain CDR2 from humanized antibody 8A6

<400> 24

Gly Ala Ser Thr Arg Tyr Thr
1 5

<210> 25
<211> 9
<212> PRT
<213> artificial

<220>
<223> light chain CDR3 from humanized antibody 8A6

<400> 25

Leu Gln Tyr Asn Asn His Pro Tyr Thr
1 5

<210> 26
<211> 104
<212> PRT
<213> artificial

<220>
<223> variable region of the heavy chain of antibody GB3

<400> 26

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

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

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

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

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

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

Gly Pro Phe Ala Tyr Trp Gly Gln
100

<210> 27
<211> 104
<212> PRT
<213> artificial

<220>
<223> variable region of the heavy chain of the antibody GB3

<400> 27

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

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

Leu Ser Trp Leu Gln Gln Lys Pro Asp Gly Thr Ile Lys Arg Leu Ile
35 40 45

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

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

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

Thr Phe Gly Gly Gly Thr Lys Leu
100

<210> 28
<211> 329
<212> PRT
<213> artificial

<220>
<223> IgG heavy chain constant region with N to A change at position
297 when regarding pos. 1 as pos. 118

<400> 28

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

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

Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
35 40 45

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

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
65 70 75 80

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
85 90 95

Lys Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys
100 105 110

Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro
115 120 125

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
130 135 140

Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145 150 155 160

Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu
165 170 175

Glu Gln Tyr Ala Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
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180

185

190

His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn
 195 200 205

Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly
 210 215 220

Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu
 225 230 235 240

Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr
 245 250 255

Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn
 260 265 270

Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe
 275 280 285

Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn
 290 295 300

Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr
 305 310 315 320

Gln Lys Ser Leu Ser Leu Ser Pro Gly
 325

<210> 29
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 <212> PRT
 <213> artificial

<220>
 <223> CDR1 from heavy chain variable region

<220>
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 <222> (1)..(1)
 <223> Xaa can be any amino acid

<220>
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 <222> (1)..(1)
 <223> Xaa can be any amino acid

<220>
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 <222> (2)..(2)
 <223> Xaa can be any amino acid

<220>
 <221> misc
 <222> (3)..(3)
 <223> Xaa can be any amino acid

<220>
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 <222> (3)..(3)
 <223> Xaa can be any amino acid

<400> 29

Xaa Xaa Xaa Met Ala
 1 5

<210> 30
 <211> 17
 <212> PRT
 <213> artificial

<220>
 <223> CDR2 from heavy chain variable region

<220>
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 <222> (2)..(2)
 <223> Xaa can be any amino acid

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 <222> (2)..(2)
 <223> Xaa can be any amino acid

<220>
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 <222> (8)..(8)
 <223> Xaa can be any amino acid

<220>
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 <222> (9)..(9)
 <223> Xaa can K or T

<220>
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 <222> (10)..(10)
 <223> Xaa can be any amino acid

<220>
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 <222> (11)..(11)
 <223> Xaa can be any amino acid

<220>
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 <222> (16)..(16)
 <223> Xaa can be any amino acid

<220>
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 <222> (17)..(17)
 <223> Xaa can be any amino acid

<220>
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 <222> (17)..(17)
 <223> Xaa can be any amino acid

<400> 30

Ser Xaa Ser Tyr Asp Gly Ser Xaa Xaa Xaa Xaa Gly Asp Ser Val Xaa
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1

5

15

Xaa

<210> 31
<211> 6
<212> PRT
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<220>
<223> CDR3 from heavy chain variable region

<220>
<221> misc
<222> (3)..(3)
<223> Xaa can be any amino acid

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

<220>
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<222> (5)..(5)
<223> Xaa can be any amino acid

<220>
<221> misc
<222> (6)..(6)
<223> Xaa can be any amino acid

<220>
<221> misc
<222> (6)..(6)
<223> Xaa can be any amino acid

<400> 31

Ala Arg Xaa Gly Xaa Xaa
1 5

<210> 32
<211> 11
<212> PRT
<213> artificial

<220>
<223> CDR1 from light chain variable region

<220>
<221> misc
<222> (1)..(1)
<223> Xaa can be any amino acid

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<223> Xaa can be any amino acid

<220>
<221> misc

<222> (3)..(3)
 <223> Xaa can be any amino acid

<220>
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 <222> (4)..(4)
 <223> Xaa can be any amino acid

<220>
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 <222> (5)..(5)
 <223> Xaa can be any amino acid

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

<220>
 <221> misc
 <222> (8)..(8)
 <223> Xaa can be S or T

<220>
 <221> misc
 <222> (9)..(9)
 <223> Xaa can be any amino acid

<400> 32

Xaa Xaa Xaa Xaa Xaa Val Xaa Xaa Xaa Val Asp
 1 5 10

<210> 33
 <211> 7
 <212> PRT
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<220>
 <223> CDR2 from light chain variable region

<220>
 <221> misc
 <222> (2)..(2)
 <223> Xaa can be any amino acid

<220>
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 <222> (3)..(3)
 <223> Xaa can be any amino acid

<220>
 <221> misc
 <222> (4)..(4)
 <223> Xaa can be T or N

<400> 33

Gly Xaa Xaa Xaa Arg Tyr Thr
 1 5

<210> 34
 <211> 9
 <212> PRT
 <213> artificial

<220>
<223> CDR3 from light chain variable region

<220>
<221> misc
<222> (1)..(1)
<223> Xaa can be any amino acid

<220>
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