

BSP 53661_ST25.txt
SEQUENCE LISTING

<110> Bayer Schering Pharma
Wang, Zhuozhi
Light, David
Liu, Bing

<120> MONOSPECIFIC AND MULTISPECIFIC ANTIBODIES AND METHOD OF USE

<130> BSP 53661

<150> US 60/955,912
<151> 2007-08-15

<150> US 60/955,913
<151> 2007-08-15

<160> 120

<170> PatentIn version 3.5

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Ser Asp Asp Asp Asp Lys
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Gly Gly Gly Gly Ser Asp Asp Asp Asp Lys
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Gly Gly Gly Gly Ser Asp Asp Asp Asp Lys Gly Gly Gly Gly Ser
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Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser
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Ile His Pro Val Leu Ser Gly Leu Ser Arg Ile Val Asn Gly Glu Asp
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Ala Val Pro Gly
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Val Ala Ala Pro Phe Asp Asp Asp Asp Lys Ile Val Gly Gly Tyr Ile
1 5 10 15

Cys Glu Glu Asn
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Glu Leu Leu Glu Ser Tyr Ile Asp Gly Arg Ile Val Glu Gly Ser Asp
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Ala Glu Ile Gly
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Ser Thr Gln Ser Phe Asn Asp Phe Thr Arg Val Val Gly Gly Glu Asp
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Ala Lys Pro Gly
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Pro Glu Arg Gly Asp Asn Asn Leu Thr Arg Ile Val Gly Gly Gln Glu
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Cys Lys Asp Gly
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Glu Asp Gln Glu Asp Gln Val Asp Pro Arg Leu Ile Asp Gly Lys Met
1 5 10 15

Thr Arg Arg Gly
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Lys Arg Asn Ala Ser Lys Pro Gln Gly Arg Ile Val Gly Gly Lys Val
1 5 10 15

Cys Pro Lys Gly
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Ser Val Cys Thr Thr Lys Thr Ser Thr Arg Ile Val Gly Gly Thr Asn
 1 5 10 15

Ser Ser Trp Gly
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Ser Arg Ile Val Gly
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Gly Ser Leu Val Ser Gly Ser Cys Ser Gln Ile Ile Asn Gly Glu Asp
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Cys Ser Pro His
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Ser Arg Ile Ile Asn
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Asn Lys Leu Val His
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Asp Lys Ile Ile Asp
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Phe Asn Val Leu Gly
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Thr Arg Ala Ile Gly
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Thr Arg Leu Asp Pro
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Thr Arg Ile Ile Lys
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Ser Gly Ser Asn Gln
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Ser Lys Val Leu Asn
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Asn Lys Ile Ile Gly
1 5

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Asp Lys Leu Leu Glu
1 5

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 Asp Asp Asp Asp Lys
 1 5

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 <400> 27

 Ile Glu Asp Gly Arg
 1 5

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 Leu Val Pro Arg Gly Ser
 1 5

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 Glu Asn Leu Tyr Phe Gln Gly
 1 5

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 Leu Glu Val Leu Phe Gln Gly Pro
 1 5

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 <223> Linker cleavage site

<400> 31

Ser Ser Val Phe Ala Gln Ser Ile Pro
 1 5

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<400> 32

Lys Gln Leu Arg Val Val Asn Gly
 1 5

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 <223> 3E10 Fab-like Light chain

<400> 33

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
 35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

Ala Gly Gly Gly Gly Ser Asp Asp Asp Asp Lys Arg Thr Val Ala Ala
 Seite 8

115

120

125

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
 130 135 140

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
 145 150 155 160

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
 165 170 175

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
 180 185 190

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
 195 200 205

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
 210 215 220

Phe Asn Arg Gly Glu Cys
 225 230

<210> 34
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<220>
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<400> 34

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

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

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

Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val Lys Gly
 50 55 60

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

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

Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val Trp Gly
 100 105 110

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Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp Lys Ser
115 120 125

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

Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
145 150 155 160

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
165 170 175

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
180 185 190

Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
195 200 205

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
210 215 220

Lys Lys Val Glu Pro Lys Cys Glu Phe
225 230

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<223> 19G9 Fab-like Light chain

<400> 35

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

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

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

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Asp Asp Asp Asp Lys
Seite 10

100

105

110

Arg Thr Val₁₁₅ Ala Ala Pro Ser Val₁₂₀ Phe Ile Phe Pro Pro₁₂₅ Ser Asp Glu

Gln Leu₁₃₀ Lys Ser Gly Thr Ala₁₃₅ Ser Val Val Cys Leu₁₄₀ Leu Asn Asn Phe

Tyr Pro Arg Glu Ala Lys₁₅₀ Val Gln Trp Lys Val₁₅₅ Asp Asn Ala Leu Gln₁₆₀

Ser Gly Asn Ser Gln₁₆₅ Glu Ser Val Thr Glu₁₇₀ Gln Asp Ser Lys Asp₁₇₅ Ser

Thr Tyr Ser Leu₁₈₀ Ser Ser Thr Leu Thr₁₈₅ Leu Ser Lys Ala Asp Tyr Glu₁₉₀

Lys His Lys₁₉₅ Val Tyr Ala Cys Glu₂₀₀ Val Thr His Gln Gly₂₀₅ Leu Ser Ser

Pro Val₂₁₀ Thr Lys Ser Phe Asn₂₁₅ Arg Gly Glu Cys

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<223> 19G9 Fab-like Heavy chain

<400> 36

Gln Leu Val Gln Ser Gly Gly Gly Leu Val₁₀ Gln Pro Gly Gly Ser Leu₁₅

Arg Leu Ser Cys₂₀ Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met₃₀

His Trp Leu₃₅ Arg Gln Ala Pro Gly₄₀ Lys Gly Leu Glu Trp Val Ser Val₄₅

Ile Gly Thr Gly Gly Val Thr₅₅ His Tyr Ala Asp Ser Val Lys Gly Arg₆₀

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser₇₅ Leu Tyr Leu Gln Met₈₀

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val₉₀ Tyr Tyr Cys Ala Arg Trp₉₅

Gly Tyr Tyr Gly₁₀₀ Ser Gly Ser Tyr Glu₁₀₅ Asn Asp Ala Phe Asp₁₁₀ Ile Trp

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

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

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

Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly
165 170 175

Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
180 185 190

Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr
195 200 205

Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys
210 215 220

Val Glu Pro Lys Cys Glu Phe
225 230

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<400> 37

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
Seite 12

Gln Ser Asp Asp Asp Asp Lys Pro Lys Ala Ala Pro Ser Val Thr Leu
115 120 125

Phe Pro Pro Ser Ser Glu Glu Leu Gln Ala Asn Lys Ala Thr Leu Val
130 135 140

Cys Leu Ile Ser Asp Phe Tyr Pro Gly Ala Val Thr Val Ala Trp Lys
145 150 155 160

Ala Asp Ser Ser Pro Val Lys Ala Gly Val Glu Thr Thr Thr Pro Ser
165 170 175

Lys Gln Ser Asn Asn Lys Tyr Ala Ala Ser Ser Tyr Leu Ser Leu Thr
180 185 190

Pro Glu Gln Trp Lys Ser His Arg Ser Tyr Ser Cys Gln Val Thr His
195 200 205

Glu Gly Ser Thr Val Glu Lys Thr Val Ala Pro Thr Glu Cys Ser
210 215 220

<210> 38
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<223> 3E10 IgG-like Heavy chain
<400> 38

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

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Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125
 Lys Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser
 130 135 140
 Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe
 145 150 155 160
 Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly
 165 170 175
 Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
 180 185 190
 Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr
 195 200 205
 Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg
 210 215 220
 Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro
 225 230 235 240
 Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
 245 250 255
 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
 260 265 270
 Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
 275 280 285
 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 290 295 300
 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
 305 310 315 320
 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
 325 330 335
 Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 340 345 350
 Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
 355 360 365
 Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro
 370 375 380

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Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
385 390 395 400

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
405 410 415

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
420 425 430

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
435 440 445

Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455

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<223> 19G9 IgG-like Light chain

<400> 39

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

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

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

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

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

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

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

Asp Asp Lys Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115 120 125

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

Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
Seite 15

145 150 160

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

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

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

Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
210 215 220

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<220>
<223> 19G9 IgG-like Heavy chain

<400> 40

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

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

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

Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys
50 55 60

Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu 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 Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp
100 105 110

Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Asp Asp
115 120 125

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

Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys
145 150 155 160

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Asp Tyr Phe Pro Glu₁₆₅ Pro Val Thr Val Ser₁₇₀ Trp Asn Ser Gly₁₇₅ Ala Leu
 Thr Ser Gly₁₈₀ Val His Thr Phe Pro₁₈₅ Val Leu Gln Ser₁₉₀ Ser Gly Leu
 Tyr Ser Leu₁₉₅ Ser Ser Val Val Thr₂₀₀ Val Pro Ser Ser₂₀₅ Ser Leu Gly Thr
 Gln Thr Tyr Ile Cys Asn Val₂₁₅ Asn His Lys Pro Ser₂₂₀ Asn Thr Lys Val
 Asp₂₂₅ Lys Arg Val Glu₂₃₀ Pro Lys Ser Cys Asp₂₃₅ Lys Thr His Thr Cys₂₄₀ Pro
 Pro Cys Pro Ala₂₄₅ Pro Glu Leu Leu Gly₂₅₀ Gly Pro Ser Val Phe₂₅₅ Leu Phe
 Pro Pro Lys₂₆₀ Pro Lys Asp Thr Leu Met₂₆₅ Ile Ser Arg Thr₂₇₀ Pro Glu Val
 Thr Cys Val₂₇₅ Val Val Asp Val Ser₂₈₀ His Glu Asp Pro₂₈₅ Glu Val Lys Phe
 Asn Trp₂₉₀ Tyr Val Asp Gly₂₉₅ Val Glu Val His Asn₃₀₀ Ala Lys Thr Lys Pro
 Arg₃₀₅ Glu Glu Gln Tyr Asn₃₁₀ Ser Thr Tyr Arg Val₃₁₅ Val Ser Val Leu Thr₃₂₀
 Val Leu His Gln Asp₃₂₅ Trp Leu Asn Gly₃₃₀ Lys Glu Tyr Lys Cys₃₃₅ Lys Val
 Ser Asn Lys Ala₃₄₀ Leu Pro Ala Pro₃₄₅ Ile Glu Lys Thr Ile₃₅₀ Ser Lys Ala
 Lys Gly Gln₃₅₅ Pro Arg Glu Pro Gln₃₆₀ Val Tyr Thr Leu Pro₃₆₅ Pro Ser Arg
 Glu Glu₃₇₀ Met Thr Lys Asn Gln₃₇₅ Val Ser Leu Thr Cys₃₈₀ Leu Val Lys Gly
 Phe Tyr Pro Ser Asp Ile₃₉₀ Ala Val Glu Trp Glu₃₉₅ Ser Asn Gly Gln Pro₄₀₀
 Glu Asn Asn Tyr Lys₄₀₅ Thr Thr Pro Pro Val₄₁₀ Leu Asp Ser Asp₄₁₅ Gly Ser
 Phe Phe Leu Tyr₄₂₀ Ser Lys Leu Thr Val₄₂₅ Asp Lys Ser Arg Trp₄₃₀ Gln Gln

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Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
435 440 445

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
450 455 460

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<212> PRT
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<220>
<223> H1L1 Light chain

<400> 41

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala
130 135 140

Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro
145 150 155 160

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

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
180 185 190

Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys
Seite 18

195

200

205

Gln Gln Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu
 210 215 220

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
 225 230 235 240

Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
 245 250 255

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
 260 265 270

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
 275 280 285

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
 290 295 300

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
 305 310 315 320

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 325 330

<210> 42

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<223> H1L1 Heavy chain

<400> 42

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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

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

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
145 150 155 160

Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
165 170 175

Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val
180 185 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
195 200 205

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
210 215 220

Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe
225 230 235 240

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
245 250 255

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
260 265 270

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
275 280 285

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
290 295 300

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
305 310 315 320

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
325 330 335

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
340 345 350

Pro Lys Cys Glu Phe
355

BSP 53661_ST25.txt

<210> 43
 <211> 330
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H1L4 Light chain

<400> 43

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
 35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

Ala Ser Asp Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser
 115 120 125

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
 130 135 140

Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
 145 150 155 160

Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
 165 170 175

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 180 185 190

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
 195 200 205

Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
 210 215 220

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
 Seite 21

225 230 240

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

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

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
275 280 285

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

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
305 310 315 320

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
325 330

<210> 44
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L4 Heavy chain

<400> 44

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

BSP 53661_ST25.txt

Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
145 150 155 160

Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
165 170 175

Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val
180 185 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
195 200 205

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
210 215 220

Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe
225 230 235 240

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
245 250 255

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
260 265 270

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
275 280 285

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
290 295 300

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
305 310 315 320

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
325 330 335

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
340 345 350

Pro Lys Cys Glu Phe
355

<210> 45
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L7 Light chain

BSP 53661_ST25.txt

<400> 45

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ala Ser Asp Asp Asp Asp Lys Ser Pro Gly Thr Leu Ser Leu Ser Pro
115 120 125

Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser
130 135 140

Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu
145 150 155 160

Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
165 170 175

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu
180 185 190

Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser
195 200 205

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
210 215 220

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
225 230 235 240

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
245 250 255

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
Seite 24

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
275 280 285

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

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
305 310 315 320

Ser Phe Asn Arg Gly Glu Cys
325

<210> 46
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L7 Heavy chain

<400> 46

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
145 150 155 160

BSP 53661_ST25.txt

Tyr Val Met His Trp₁₆₅ Leu Arg Gln Ala Pro₁₇₀ Gly Lys Gly Leu Glu Trp₁₇₅

Val Ser Val Ile₁₈₀ Gly Thr Gly Gly Val₁₈₅ Thr His Tyr Ala Asp₁₉₀ Ser Val

Lys Gly Arg₁₉₅ Phe Thr Ile Ser Arg₂₀₀ Asp Asn Ala Lys Asn₂₀₅ Ser Leu Tyr

Leu Gln Met Asn Ser Leu Arg₂₁₅ Ala Glu Asp Thr Ala₂₂₀ Val Tyr Tyr Cys

Ala Arg Trp Gly Tyr Tyr₂₃₀ Gly Ser Gly Ser Tyr₂₃₅ Glu Asn Asp Ala Phe₂₄₀

Asp Ile Trp Gly Gln₂₄₅ Gly Thr Met Val Thr₂₅₀ Val Ser Ser Ala Ser₂₅₅ Thr

Lys Gly Pro Ser₂₆₀ Val Phe Pro Leu Ala₂₆₅ Pro Ser Ser Lys Ser₂₇₀ Thr Ser

Gly Gly Thr₂₇₅ Ala Ala Leu Gly Cys₂₈₀ Leu Val Lys Asp Tyr₂₈₅ Phe Pro Glu

Pro Val Thr Val Ser Trp Asn₂₉₅ Ser Gly Ala Leu Thr₃₀₀ Ser Gly Val His

Thr Phe Pro Ala Val Leu₃₁₀ Gln Ser Ser Gly Leu₃₁₅ Tyr Ser Leu Ser Ser₃₂₀

Val Val Thr Val Pro₃₂₅ Ser Ser Ser Leu Gly₃₃₀ Thr Gln Thr Tyr Ile₃₃₅ Cys

Asn Val Asn His₃₄₀ Lys Pro Ser Asn Thr₃₄₅ Lys Val Asp Lys Lys₃₅₀ Val Glu

Pro Lys Cys₃₅₅ Glu Phe

<210> 47
<211> 331
<212> PRT
<213> Artificial Sequence

<220>
<223> H4L2 Light chain

<400> 47

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

Thr Val Thr Ile Ser Cys Thr Arg Ser Ser Gly Ser Val Ala Ser Tyr
Seite 26

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln
130 135 140

Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
145 150 155 160

Ala Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile
165 170 175

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
180 185 190

Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
195 200 205

Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
210 215 220

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
225 230 235 240

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

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

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
275 280 285

Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu

290

295

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
305 310 315 320

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
325 330

<210> 48
<211> 349
<212> PRT
<213> Artificial Sequence

<220>
<223> H4L2 Heavy chain

<400> 48

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Gln Ser
115 120 125

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
130 135 140

Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln
145 150 155 160

Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly
165 170 175

Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
180 185 190

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Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser
210 215 220

Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met
225 230 235 240

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
245 250 255

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
260 265 270

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

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
290 295 300

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
305 310 315 320

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
325 330 335

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345

<210> 49
<211> 328
<212> PRT
<213> Artificial Sequence

<220>
<223> H4L5 Light chain

<400> 49

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

Gly Ser Ile Asp Thr Ser Ser Asn Ser Ala Ser Leu Thr Ile Ser Gly
Seite 29

65

70

80

Leu Lys Thr Glu Asp₈₅ Glu Ala Asp Tyr Tyr₉₀ Cys Gln Ser Tyr Asp₉₅ Ser

Asn Asn Leu Val₁₀₀ Val Phe Gly Gly₁₀₅ Thr Lys Leu Thr Val₁₁₀ Leu Gly

Asp Asp Asp₁₁₅ Asp Lys Leu Thr Gln₁₂₀ Ser Pro Gly Thr Leu₁₂₅ Ser Leu Ser

Pro Gly₁₃₀ Glu Arg Ala Thr Leu₁₃₅ Ser Cys Arg Ala Ser₁₄₀ Gln Ser Val Ser

Ser Ser Tyr Leu Ala Trp₁₅₀ Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg₁₆₀

Leu Leu Ile Tyr Gly₁₆₅ Ala Ser Ser Arg Ala₁₇₀ Thr Gly Ile Pro Asp₁₇₅ Arg

Phe Ser Gly Ser₁₈₀ Gly Ser Gly Thr Asp₁₈₅ Phe Thr Leu Thr Ile₁₉₀ Ser Arg

Leu Glu Pro₁₉₅ Glu Asp Phe Ala Val₂₀₀ Tyr Tyr Cys Gln Gln₂₀₅ Tyr Ser Ser

Ser Leu₂₁₀ Thr Phe Gly Gly₂₁₅ Thr Lys Val Glu Ile₂₂₀ Lys Arg Thr Val

Ala Ala Pro Ser Val₂₃₀ Phe Ile Phe Pro Pro Ser₂₃₅ Asp Glu Gln Leu Lys₂₄₀

Ser Gly Thr Ala Ser₂₄₅ Val Val Cys Leu Leu₂₅₀ Asn Asn Phe Tyr Pro₂₅₅ Arg

Glu Ala Lys Val₂₆₀ Gln Trp Lys Val Asp₂₆₅ Asn Ala Leu Gln Ser₂₇₀ Gly Asn

Ser Gln Glu Ser Val Thr Glu Gln₂₈₀ Asp Ser Lys Asp Ser₂₈₅ Thr Tyr Ser

Leu Ser₂₉₀ Ser Thr Leu Thr Leu₂₉₅ Ser Lys Ala Asp Tyr₃₀₀ Glu Lys His Lys

Val Tyr Ala Cys Glu Val₃₁₀ Thr His Gln Gly Leu₃₁₅ Ser Ser Pro Val Thr₃₂₀

Lys Ser Phe Asn Arg₃₂₅ Gly Glu Cys

<210> 50

BSP 53661_ST25.txt

<211> 349
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H4L5 Heavy chain

<400> 50

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

BSP 53661_ST25.txt

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
245 250 255

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
260 265 270

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

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
290 295 300

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
305 310 315 320

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
325 330 335

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345

<210> 51
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> H4L7
<400> 51

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ala Ser Asp Asp Asp Asp Lys Ser Pro Gly Thr Leu Ser Leu Ser Pro
Seite 32

115

120

125

Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser
 130 135 140

Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu
 145 150 155 160

Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
 165 170 175

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu
 180 185 190

Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser
 195 200 205

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
 210 215 220

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
 225 230 235 240

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
 245 250 255

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
 260 265 270

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
 275 280 285

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

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
 305 310 315 320

Ser Phe Asn Arg Gly Glu Cys
 325

<210> 52
 <211> 349
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H4L7 Heavy chain

<400> 52

Gln val Gln Leu val Glu ser Gly Gly Thr Leu Val Gln Pro Gly Gly
 1 5 10 15

BSP 53661_ST25.txt

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Gln Ser
115 120 125

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
130 135 140

Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln
145 150 155 160

Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly
165 170 175

Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
180 185 190

Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser
210 215 220

Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met
225 230 235 240

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
245 250 255

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
260 265 270

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

BSP 53661_ST25.txt

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
290 295 300

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
305 310 315 320

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
325 330 335

Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345

<210> 53
<211> 328
<212> PRT
<213> Artificial Sequence

<220>
<223> H5L5 Light chain

<400> 53

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Asp Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser
115 120 125

Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser
130 135 140

Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg
145 150 155 160

Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg
Seite 35

165

170

175

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg
 180 185 190

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

Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val
 210 215 220

Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys
 225 230 235 240

Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg
 245 250 255

Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn
 260 265 270

Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser
 275 280 285

Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys
 290 295 300

Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr
 305 310 315 320

Lys Ser Phe Asn Arg Gly Glu Cys
 325

<210> 54

<211> 347

<212> PRT

<213> Artificial Sequence

<220>

<223> H5L5 Heavy chain

<400> 54

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

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

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

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

BSP 53661_ST25.txt

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
 Ala Arg Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125
 Lys Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser
 130 135 140
 Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln Ala Pro
 145 150 155 160
 Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly Val Thr
 165 170 175
 His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 180 185 190
 Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 195 200 205
 Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser
 210 215 220
 Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr
 225 230 235 240
 Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
 245 250 255
 Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
 260 265 270
 Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
 275 280 285
 Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
 290 295 300
 Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly
 305 310 315 320
 Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys
 325 330 335

BSP 53661_ST25.txt

Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345

<210> 55
<211> 333
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker1-19G9 Light chain

<400> 55

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala
130 135 140

Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro
145 150 155 160

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

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
180 185 190

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

Gln Gln Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu
Seite 38

210

215

220

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
 225 230 235 240

Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
 245 250 255

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
 260 265 270

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
 275 280 285

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
 290 295 300

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
 305 310 315 320

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 325 330

<210> 56

<211> 583

<212> PRT

<213> Artificial Sequence

<220>

<223> 3E10-Linker1-19G9 Heavy chain

<400> 56

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

BSP 53661_ST25.txt

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125
 Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
 130 135 140
 Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
 145 150 155 160
 Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 165 170 175
 Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val
 180 185 190
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 195 200 205
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 210 215 220
 Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe
 225 230 235 240
 Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
 245 250 255
 Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
 260 265 270
 Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 275 280 285
 Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 290 295 300
 Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
 305 310 315 320
 Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
 325 330 335
 Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu
 340 345 350
 Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 355 360 365
 Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 370 375 380

BSP 53661_ST25.txt

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
385 390 395 400

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
405 410 415

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
420 425 430

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
435 440 445

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
450 455 460

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
465 470 475 480

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
485 490 495

Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
500 505 510

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
515 520 525

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
530 535 540

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
545 550 555 560

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
565 570 575

Leu Ser Leu Ser Pro Gly Lys
580

<210> 57
<211> 337
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker2-19G9 Light chain

<400> 57

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
1 5 10 15

Thr Val Thr Ile Ser Cys Thr Arg Ser Ser Gly Ser Val Ala Ser Tyr
Seite 41

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ala Gly Gly Gly Gly Ser Asp Asp Asp Lys Glu Ile Val Leu Thr
115 120 125

Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu
130 135 140

Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr
145 150 155 160

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

Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly
180 185 190

Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala
195 200 205

Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly
210 215 220

Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile
225 230 235 240

Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val
245 250 255

Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys
260 265 270

Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
275 280 285

Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu

290

295

Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
305 310 315 320

His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu
325 330 335

Cys

<210> 58
<211> 587
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker2-19G9 Heavy chain

<400> 58

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Gly Gly Gly Gly Ser
115 120 125

Asp Asp Asp Asp Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu
130 135 140

Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe
145 150 155 160

Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys
165 170 175

BSP 53661_ST25.txt

Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr
180 185 190

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys
195 200 205

Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala
210 215 220

Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu
225 230 235 240

Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser
245 250 255

Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
260 265 270

Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
275 280 285

Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
290 295 300

Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
305 310 315 320

Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln
325 330 335

Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
340 345 350

Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His Thr Cys Pro Pro
355 360 365

Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro
370 375 380

Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr
385 390 395 400

Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn
405 410 415

Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg
420 425 430

Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val
435 440 445

BSP 53661_ST25.txt

Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser
450 455 460

Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys
465 470 475 480

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

Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu Val Lys Gly Phe
500 505 510

Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu
515 520 525

Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe
530 535 540

Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly
545 550 555 560

Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr
565 570 575

Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
580 585

<210> 59
<211> 342
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker3-19G9 Light chain

<400> 59

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

Leu Lys Thr Glu Asp Glu Ala Asp Tyr Tyr Cys Gln Ser Tyr Asp Ser
Seite 45

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ala Gly Gly Gly Gly Ser Asp Asp Asp Lys Gly Gly Gly Gly Ser
115 120 125

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
130 135 140

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
145 150 155 160

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
165 170 175

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
180 185 190

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
195 200 205

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser Leu
210 215 220

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
225 230 235 240

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
245 250 255

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
260 265 270

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
275 280 285

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
290 295 300

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
305 310 315 320

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
325 330 335

Phe Asn Arg Gly Glu Cys
340

<210> 60

BSP 53661_ST25.txt

<211> 592
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> 3E10-Linker3-19G9 Heavy chain

<400> 60

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Gly Gly Gly Gly Ser
 115 120 125

Asp Asp Asp Asp Lys Gly Gly Gly Gly Ser Glu Val Gln Leu Val Gln
 130 135 140

Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
 145 150 155 160

Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg
 165 170 175

Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly
 180 185 190

Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
 195 200 205

Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg
 210 215 220

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly
 225 230 235 240

BSP 53661_ST25.txt

Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr
245 250 255

Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
260 265 270

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
275 280 285

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
290 295 300

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
305 310 315 320

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
325 330 335

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
340 345 350

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
355 360 365

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
370 375 380

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
385 390 395 400

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
405 410 415

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
420 425 430

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
435 440 445

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
450 455 460

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
465 470 475 480

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
485 490 495

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
500 505 510

BSP 53661_ST25.txt

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
515 520 525

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
530 535 540

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
545 550 555 560

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
565 570 575

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
580 585 590

<210> 61
<211> 342
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker4-19G9 Light chain

<400> 61

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ala Gly Gly Gly Gly Ser Gly Gly Gly Ser Gly Gly Gly Ser
115 120 125

Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
130 135 140

Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser
Seite 49

145 150 160

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
165 170 175

Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
180 185 190

Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
195 200 205

Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser Leu
210 215 220

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala
225 230 235 240

Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
245 250 255

Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
260 265 270

Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln
275 280 285

Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser
290 295 300

Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr
305 310 315 320

Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser
325 330 335

Phe Asn Arg Gly Glu Cys
340

<210> 62
<211> 592
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker4-19G9 Heavy chain

<400> 62

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

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

BSP 53661_ST25.txt

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Gly Gly Gly Gly Ser
115 120 125

Gly Gly Gly Gly Ser Gly Gly Gly Gly Ser Glu Val Gln Leu Val Gln
130 135 140

Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys
145 150 155 160

Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg
165 170 175

Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly
180 185 190

Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
195 200 205

Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg
210 215 220

Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly
225 230 235 240

Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr
245 250 255

Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
260 265 270

Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly
275 280 285

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
290 295 300

BSP 53661_ST25.txt

Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
305 310 315 320

Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
325 330 335

Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
340 345 350

Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
355 360 365

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser
370 375 380

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
385 390 395 400

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
405 410 415

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
420 425 430

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
435 440 445

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
450 455 460

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
465 470 475 480

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
485 490 495

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys
500 505 510

Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
515 520 525

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
530 535 540

Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser
545 550 555 560

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
565 570 575

BSP 53661_ST25.txt

Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
580 585 590

<210> 63
<211> 333
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Link1-19G9 Fab Light chain
<400> 63

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala
130 135 140

Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro
145 150 155 160

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

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
180 185 190

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

Gln Gln Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu
Seite 53

210

215

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
225 230 235 240

Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
245 250 255

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
260 265 270

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
275 280 285

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
290 295 300

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
305 310 315 320

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Ala
325 330

<210> 64
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Link1-19G9 Fab Heavy chain

<400> 64

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

BSP 53661_ST25.txt

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
145 150 155 160

Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
165 170 175

Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val
180 185 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
195 200 205

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
210 215 220

Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe
225 230 235 240

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
245 250 255

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
260 265 270

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
275 280 285

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
290 295 300

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
305 310 315 320

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
325 330 335

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
340 345 350

Pro Lys Ser Glu Phe
355

<210> 65
<211> 328
<212> PRT

<213> Artificial Sequence

<220>

<223> H1L5 Light chain

<400> 65

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
 35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

Asp Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser
 115 120 125

Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser
 130 135 140

Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg
 145 150 155 160

Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg
 165 170 175

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg
 180 185 190

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

Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val
 210 215 220

Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys
 225 230 235 240

Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg
 Seite 56

Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn
260 265 270
Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser
275 280 285
Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys
290 295 300
Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr
305 310 315 320
Lys Ser Phe Asn Arg Gly Glu Cys
325

<210> 66
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L5 Heavy chain

<400> 66

Gln Val Gln Leu Val Glu Ser Gly Gly Thr Leu Val Gln Pro Gly Gly
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Thr Asp Ala
20 25 30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Leu Glu Trp Val
35 40 45
Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125
Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

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Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
 145 150 155 160
 Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
 165 170 175
 Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val
 180 185 190
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 195 200 205
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 210 215 220
 Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe
 225 230 235 240
 Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
 245 250 255
 Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
 260 265 270
 Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
 275 280 285
 Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
 290 295 300
 Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
 305 310 315 320
 Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
 325 330 335
 Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
 340 345 350
 Pro Lys Cys Glu Phe
 355

<210> 67
 <211> 333
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2L1 Light chain

<400> 67

Asp Ile Val Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
 Seite 58

1 5 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala
130 135 140

Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro
145 150 155 160

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

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
180 185 190

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

Gln Gln Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu
210 215 220

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
225 230 235 240

Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
245 250 255

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
260 265 270

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys

275

280

285

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
 290 295 300

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
 305 310 315 320

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 325 330

<210> 68

<211> 354

<212> PRT

<213> Artificial Sequence

<220>

<223> H2L1 Heavy chain

<400> 68

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
 115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
 130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
 145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
 165 170 175

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Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 69
<211> 331
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L2 Light chain

<400> 69

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
Seite 61

35

40

45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

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

Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln
 130 135 140

Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 145 150 155 160

Ala Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile
 165 170 175

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 180 185 190

Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
 195 200 205

Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 210 215 220

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
 225 230 235 240

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

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

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
 275 280 285

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

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

305

310

320

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
325 330

<210> 70
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L2 Heavy chain

<400> 70

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

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Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
 210 215 220
 Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
 225 230 235 240
 Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 245 250 255
 Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
 260 265 270
 Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 275 280 285
 Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 290 295 300
 Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 305 310 315 320
 Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
 325 330 335
 His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
 340 345 350

Glu Phe

<210> 71
 <211> 332
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2L4 Light chain

<400> 71

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

65

70

80

Leu Lys Thr Glu Asp₈₅ Glu Ala Asp Tyr Tyr₉₀ Cys Gln Ser Tyr Asp₉₅ Ser

Asn Asn Leu Val₁₀₀ Val Phe Gly Gly₁₀₅ Thr Lys Leu Thr Val₁₁₀ Leu Gly

Ala Ser Ala₁₁₅ Ser Asp Asp Asp Asp₁₂₀ Lys Leu Thr Gln Ser₁₂₅ Pro Gly Thr

Leu Ser₁₃₀ Leu Ser Pro Gly₁₃₅ Arg Ala Thr Leu Ser₁₄₀ Cys Arg Ala Ser

Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr₁₅₅ Gln Gln Lys Pro Gly₁₆₀

Gln Ala Pro Arg Leu₁₆₅ Leu Ile Tyr Gly Ala₁₇₀ Ser Ser Arg Ala Thr Gly₁₇₅

Ile Pro Asp Arg₁₈₀ Phe Ser Gly Ser Gly₁₈₅ Ser Gly Thr Asp Phe₁₉₀ Thr Leu

Thr Ile Ser₁₉₅ Arg Leu Glu Pro Glu₂₀₀ Asp Phe Ala Val Tyr₂₀₅ Tyr Cys Gln

Gln Tyr₂₁₀ Ser Ser Ser Leu Thr₂₁₅ Phe Gly Gly Gly Thr₂₂₀ Lys Val Glu Ile

Lys Arg Thr Val Ala₂₃₀ Ala Pro Ser Val Phe Ile₂₃₅ Phe Pro Pro Ser Asp₂₄₀

Glu Gln Leu Lys Ser₂₄₅ Gly Thr Ala Ser Val₂₅₀ Val Cys Leu Leu Asn₂₅₅ Asn

Phe Tyr Pro Arg₂₆₀ Glu Ala Lys Val Gln Trp Lys Val Asp Asn₂₇₀ Ala Leu

Gln Ser Gly₂₇₅ Asn Ser Gln Glu Ser₂₈₀ Val Thr Glu Gln Asp₂₈₅ Ser Lys Asp

Ser Thr Tyr Ser Leu Ser Ser₂₉₅ Thr Leu Thr Leu Ser₃₀₀ Lys Ala Asp Tyr

Glu Lys His Lys Val Tyr₃₁₀ Ala Cys Glu Val Thr₃₁₅ His Gln Gly Leu Ser₃₂₀

Ser Pro Val Thr Lys₃₂₅ Ser Phe Asn Arg Gly₃₃₀ Glu Cys

<210> 72

BSP 53661_ST25.txt

<211> 354
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2L4 Heavy chain

<400> 72

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
 115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
 130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
 145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
 165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
 180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
 195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
 210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
 225 230 235 240

BSP 53661_ST25.txt

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 73
<211> 328
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L5 Light chain

<400> 73

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly

100

105

110

Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser
 115 120 125

Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser
 130 135 140

Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg
 145 150 155 160

Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg
 165 170 175

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg
 180 185 190

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

Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val
 210 215 220

Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys
 225 230 235 240

Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg
 245 250 255

Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn
 260 265 270

Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser
 275 280 285

Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys
 290 295 300

Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr
 305 310 315 320

Lys Ser Phe Asn Arg Gly Glu Cys
 325

<210> 74
 <211> 354
 <212> PRT
 <213> Artificial sequence

<220>
 <223> H2L5 Heavy chain

<400> 74

BSP 53661_ST25.txt

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

BSP 53661_ST25.txt

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 75
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L7 Light chain

<400> 75

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ala Ser Asp Asp Asp Asp Lys Ser Pro Gly Thr Leu Ser Leu Ser Pro
115 120 125

Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser
Seite 70

130

135

Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu
145 150 155 160

Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
165 170 175

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu
180 185 190

Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser
195 200 205

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
210 215 220

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
225 230 235 240

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
245 250 255

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
260 265 270

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
275 280 285

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

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
305 310 315 320

Ser Phe Asn Arg Gly Glu Cys
325

<210> 76
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L7 Heavy chain

<400> 76

Gln val Gln Leu val Glu Ser Gly Gly Thr Leu val Gln Pro Gly Gly
1 5 10 15

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

BSP 53661_ST25.txt

Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Leu Glu Trp Val
 35 40 45
 Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
 115 120 125
 Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
 130 135 140
 Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
 145 150 155 160
 His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
 165 170 175
 Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
 180 185 190
 Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
 195 200 205
 Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
 210 215 220
 Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
 225 230 235 240
 Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 245 250 255
 Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
 260 265 270
 Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 275 280 285
 Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 290 295 300

BSP 53661_ST25.txt

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 77
<211> 325
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L8 Light chain

<400> 77

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Asp Asp Asp Asp Lys Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly Glu
115 120 125

Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr
130 135 140

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
145 150 155 160

Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
Seite 73

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
180 185 190

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

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
210 215 220

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
225 230 235 240

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
245 250 255

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
260 265 270

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
275 280 285

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

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
305 310 315 320

Asn Arg Gly Glu Cys
325

<210> 78
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L8 Heavy chain

<400> 78

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

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

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

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

BSP 53661_ST25.txt

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
 Ala Arg Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
 115 120 125
 Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
 130 135 140
 Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
 145 150 155 160
 His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
 165 170 175
 Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
 180 185 190
 Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
 195 200 205
 Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
 210 215 220
 Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
 225 230 235 240
 Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 245 250 255
 Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
 260 265 270
 Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 275 280 285
 Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 290 295 300
 Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 305 310 315 320
 Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
 325 330 335

BSP 53661_ST25.txt

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
 340 345 350

Glu Phe

<210> 79
 <211> 330
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> 3E10-Linker1a-19G9 Light chain

<400> 79

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
 1 5 10 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
 35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

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

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

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

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

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
 130 135 140

Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
 145 150 155 160

Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
 165 170 175

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 180 185 190

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
 Seite 76

195

200

205

Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
 210 215 220

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
 225 230 235 240

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

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

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
 275 280 285

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

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
 305 310 315 320

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 325 330

<210> 80

<211> 580

<212> PRT

<213> Artificial Sequence

<220>

<223> 3E10-Linker1a-19G9 Heavy chain

<400> 80

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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

BSP 53661_ST25.txt

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

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser
340 345 350

Cys Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu
355 360 365

BSP 53661_ST25.txt

Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu
370 375 380

Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser
385 390 395 400

His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu
405 410 415

Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr
420 425 430

Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn
435 440 445

Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro
450 455 460

Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln
465 470 475 480

Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val
485 490 495

Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val
500 505 510

Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro
515 520 525

Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr
530 535 540

Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val
545 550 555 560

Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu
565 570 575

Ser Pro Gly Lys
580

<210> 81
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker1b-19G9 Light chain

<400> 81

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
Seite 79

1 5 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

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

Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro
115 120 125

Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser
130 135 140

Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu
145 150 155 160

Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
165 170 175

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu
180 185 190

Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser
195 200 205

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
210 215 220

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
225 230 235 240

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
245 250 255

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
260 265 270

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu

275

280

285

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

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
 305 310 315 320

Ser Phe Asn Arg Gly Glu Cys
 325

<210> 82

<211> 575

<212> PRT

<213> Artificial Sequence

<220>

<223> 3E10-Linker1b-19G9 Heavy chain

<400> 82

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Gln Ser
 115 120 125

Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala
 130 135 140

Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln
 145 150 155 160

Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly
 165 170 175

BSP 53661_ST25.txt

Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg
180 185 190

Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala
195 200 205

Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser
210 215 220

Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met
225 230 235 240

Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu
245 250 255

Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys
260 265 270

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

Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser
290 295 300

Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
305 310 315 320

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn
325 330 335

Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr His
340 345 350

Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly Pro Ser Val
355 360 365

Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr
370 375 380

Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu
385 390 395 400

Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys
405 410 415

Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser
420 425 430

Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys
435 440 445

BSP 53661_ST25.txt

Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile
450 455 460

Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro
465 470 475 480

Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Thr Cys Leu
485 490 495

Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn
500 505 510

Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser
515 520 525

Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg
530 535 540

Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu
545 550 555 560

His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
565 570 575

<210> 83
<211> 330
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker1c-19G9 Light chain

<400> 83

Asn Phe Met Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
1 5 10 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
Seite 83

Ala Ser Asp₁₁₅ Asp Asp Asp Lys Leu₁₂₀ Thr Gln Ser Pro Gly₁₂₅ Thr Leu Ser
Leu Ser Pro Gly Glu Arg Ala₁₃₅ Thr Leu Ser Cys Arg Ala Ser Gln Ser
Val₁₄₅ Ser Ser Ser Tyr Leu₁₅₀ Ala Trp Tyr Gln Gln₁₅₅ Lys Pro Gly Gln Ala₁₆₀
Pro Arg Leu Leu Ile₁₆₅ Tyr Gly Ala Ser Ser₁₇₀ Arg Ala Thr Gly Ile₁₇₅ Pro
Asp Arg Phe Ser₁₈₀ Gly Ser Gly Ser Gly₁₈₅ Thr Asp Phe Thr Leu₁₉₀ Thr Ile
Ser Arg Leu₁₉₅ Glu Pro Glu Asp Phe₂₀₀ Ala Val Tyr Tyr Cys₂₀₅ Gln Gln Tyr
Ser Ser Ser Leu Thr Phe Gly₂₁₅ Gly Gly Thr Lys Val₂₂₀ Glu Ile Lys Arg
Thr Val Ala Ala Pro Ser₂₃₀ Val Phe Ile Phe Pro₂₃₅ Pro Ser Asp Glu Gln₂₄₀
Leu Lys Ser Gly Thr₂₄₅ Ala Ser Val Val Cys₂₅₀ Leu Leu Asn Asn Phe Tyr₂₅₅
Pro Arg Glu Ala₂₆₀ Lys Val Gln Trp Lys₂₆₅ Val Asp Asn Ala Leu₂₇₀ Gln Ser
Gly Asn Ser₂₇₅ Gln Glu Ser Val Thr₂₈₀ Glu Gln Asp Ser Lys₂₈₅ Asp Ser Thr
Tyr Ser₂₉₀ Leu Ser Ser Thr Leu₂₉₅ Thr Leu Ser Lys Ala₃₀₀ Asp Tyr Glu Lys
His Lys Val Tyr Ala Cys₃₁₀ Glu Val Thr His Gln₃₁₅ Gly Leu Ser Ser Pro₃₂₀
Val Thr Lys Ser Phe₃₂₅ Asn Arg Gly Glu Cys₃₃₀

<210> 84
<211> 578
<212> PRT
<213> Artificial Sequence

<220>
<223> 3E10-Linker1c-19G9 Heavy chain

<400> 84

BSP 53661_ST25.txt

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

Lys Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu
130 135 140

Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp
145 150 155 160

Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly
165 170 175

Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
180 185 190

Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser
195 200 205

Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr
210 215 220

Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln
225 230 235 240

Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
245 250 255

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
260 265 270

BSP 53661_ST25.txt

Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 275 280 285
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 290 295 300
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 305 310 315 320
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 325 330 335
 Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp
 340 345 350
 Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Leu Leu Gly Gly
 355 360 365
 Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile
 370 375 380
 Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu
 385 390 395 400
 Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His
 405 410 415
 Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg
 420 425 430
 Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys
 435 440 445
 Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu
 450 455 460
 Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr
 465 470 475 480
 Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu
 485 490 495
 Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp
 500 505 510
 Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val
 515 520 525
 Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp
 530 535 540

BSP 53661_ST25.txt

Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His
545 550 555 560

Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro
565 570 575

Gly Lys

<210> 85
<211> 333
<212> PRT
<213> Artificial Sequence

<220>
<223> H3L1 Light chain

<400> 85

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala
130 135 140

Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro
145 150 155 160

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

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
Seite 87

180

185

190

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

Gln Gln Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu
 210 215 220

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
 225 230 235 240

Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
 245 250 255

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
 260 265 270

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
 275 280 285

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
 290 295 300

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
 305 310 315 320

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 325 330

<210> 86
 <211> 352
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H3L1 Heavy chain

<400> 86

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

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

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

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

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

BSP 53661_ST25.txt

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125
 Lys Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu
 130 135 140
 Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp
 145 150 155 160
 Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly
 165 170 175
 Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
 180 185 190
 Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser
 195 200 205
 Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr
 210 215 220
 Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln
 225 230 235 240
 Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
 245 250 255
 Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
 260 265 270
 Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser
 275 280 285
 Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
 290 295 300
 Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
 305 310 315 320
 Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
 325 330 335
 Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
 340 345 350

BSP 53661_ST25.txt

<210> 87
 <211> 331
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H3L2 Light chain

<400> 87

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
 35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

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

Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln
 130 135 140

Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
 145 150 155 160

Ala Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile
 165 170 175

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
 180 185 190

Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
 195 200 205

Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
 210 215 220

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
 Seite 90

225 230 235 240

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

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

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
275 280 285

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

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
305 310 315 320

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
325 330

<210>	88
<211>	352
<212>	PRT
<213>	Artificial Sequence

<220>
<223> H3L2 Heavy chain

<400> 88

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

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Thr Asp Ala

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

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Lys Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu
130 135 140

Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp
145 150 155 160

Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly
165 170 175

Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
180 185 190

Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser
195 200 205

Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr
210 215 220

Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln
225 230 235 240

Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
245 250 255

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
260 265 270

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

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
290 295 300

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
305 310 315 320

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
325 330 335

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345 350

<210> 89
<211> 330
<212> PRT
<213> Artificial Sequence

<220>
<223> H3L4 Light chain

<400> 89

Asp Ile Val Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys
Seite 92

1 5 15

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

Ala Ser Asp Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser
115 120 125

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
130 135 140

Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
145 150 155 160

Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
165 170 175

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
180 185 190

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
195 200 205

Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
210 215 220

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
225 230 235 240

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

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

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr

275

280

285

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

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
 305 310 315 320

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 325 330

<210> 90

<211> 352

<212> PRT

<213> Artificial Sequence

<220>

<223> H3L4 Heavy chain

<400> 90

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125

Lys Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu
 130 135 140

Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp
 145 150 155 160

Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly
 165 170 175

BSP 53661_ST25.txt

Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
180 185 190

Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser
195 200 205

Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr
210 215 220

Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln
225 230 235 240

Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
245 250 255

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
260 265 270

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

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
290 295 300

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
305 310 315 320

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
325 330 335

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345 350

<210> 91
<211> 328
<212> PRT
<213> Artificial Sequence

<220>
<223> H3L5 Light chain

<400> 91

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
Seite 95

50

55

60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

Asp Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser
 115 120 125

Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser
 130 135 140

Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg
 145 150 155 160

Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg
 165 170 175

Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg
 180 185 190

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

Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val
 210 215 220

Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys
 225 230 235 240

Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg
 245 250 255

Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn
 260 265 270

Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser
 275 280 285

Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp Tyr Glu Lys His Lys
 290 295 300

Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr
 305 310 315 320

Lys Ser Phe Asn Arg Gly Glu Cys

<210> 92
 <211> 352
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H3L5 Heavy chain

<400> 92

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125

Lys Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu
 130 135 140

Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp
 145 150 155 160

Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly
 165 170 175

Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
 180 185 190

Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser
 195 200 205

Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr
 210 215 220

BSP 53661_ST25.txt

Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln
225 230 235 240

Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
245 250 255

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
260 265 270

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

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
290 295 300

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro
305 310 315 320

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
325 330 335

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345 350

<210> 93
<211> 327
<212> PRT
<213> Artificial Sequence

<220>
<223> H3L7 Light chain

<400> 93

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
Seite 98

100

105

110

Ala Ser Asp Asp Asp Asp Lys Ser Pro Gly Thr Leu Ser Leu Ser Pro
 115 120 125

Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser
 130 135 140

Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu
 145 150 155 160

Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe
 165 170 175

Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu
 180 185 190

Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr Ser Ser Ser
 195 200 205

Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala
 210 215 220

Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser
 225 230 235 240

Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu
 245 250 255

Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser
 260 265 270

Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu
 275 280 285

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

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
 305 310 315 320

Ser Phe Asn Arg Gly Glu Cys
 325

<210> 94
 <211> 352
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H3L7 Heavy chain

<400> 94

BSP 53661_ST25.txt

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

Lys Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu
130 135 140

Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp
145 150 155 160

Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly
165 170 175

Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr
180 185 190

Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser
195 200 205

Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr
210 215 220

Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln
225 230 235 240

Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val
245 250 255

Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala
260 265 270

BSP 53661_ST25.txt

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

Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val
290 295 300

Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Val Val Thr Val Pro
305 310 315 320

Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys
325 330 335

Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345 350

<210> 95
<211> 331
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L2 Light chain

<400> 95

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln
130 135 140

Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln
seite 101

145 150 160

Ala Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile
165 170 175

Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr
180 185 190

Ile Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln
195 200 205

Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
210 215 220

Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
225 230 235 240

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

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

Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser
275 280 285

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

Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser
305 310 315 320

Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
325 330

<210> 96
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L2 Heavy chain

<400> 96

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

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

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

BSP 53661_ST25.txt

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp
115 120 125

Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
145 150 155 160

Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
165 170 175

Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val
180 185 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
195 200 205

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
210 215 220

Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe
225 230 235 240

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
245 250 255

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
260 265 270

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
275 280 285

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
290 295 300

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
305 310 315 320

BSP 53661_ST25.txt

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
325 330 335

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
340 345 350

Pro Lys Cys Glu Phe
355

<210> 97
<211> 333
<212> PRT
<213> Artificial Sequence

<220>
<223> H5L1 Light chain

<400> 97

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
100 105 110

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

Thr Leu Ser Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala
130 135 140

Ser Gln Ser Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro
145 150 155 160

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

Gly Ile Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr
Seite 104

180

185

190

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

Gln Gln Tyr Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu
 210 215 220

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser
 225 230 235 240

Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
 245 250 255

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala
 260 265 270

Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys
 275 280 285

Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser Lys Ala Asp
 290 295 300

Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu
 305 310 315 320

Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
 325 330

<210> 98
 <211> 347
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H5L1 Heavy chain

<400> 98

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

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

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

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

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

BSP 53661_ST25.txt

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125
 Lys Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser
 130 135 140
 Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln Ala Pro
 145 150 155 160
 Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly Val Thr
 165 170 175
 His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 180 185 190
 Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 195 200 205
 Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser
 210 215 220
 Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr
 225 230 235 240
 Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
 245 250 255
 Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
 260 265 270
 Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
 275 280 285
 Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
 290 295 300
 Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly
 305 310 315 320
 Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys
 325 330 335
 Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
 340 345

BSP 53661_ST25.txt

<210> 99
 <211> 330
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H5L4 Light chain
 <400> 99

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
 35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
 50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

Ala Ser Asp Asp Asp Asp Lys Leu Thr Gln Ser Pro Gly Thr Leu Ser
 115 120 125

Leu Ser Pro Gly Glu Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser
 130 135 140

Val Ser Ser Ser Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala
 145 150 155 160

Pro Arg Leu Leu Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro
 165 170 175

Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile
 180 185 190

Ser Arg Leu Glu Pro Glu Asp Phe Ala Val Tyr Tyr Cys Gln Gln Tyr
 195 200 205

Ser Ser Ser Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
 210 215 220

Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
 225 230 235 240 245 250 255 260 265 270 275 280 285 290 295 300 305 310 315 320 325 330

225 230 240

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

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

Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr
275 280 285

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

His Lys Val Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro
305 310 315 320

Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
325 330

<210> 100
<211> 347
<212> PRT
<213> Artificial Sequence

<220>
<223> H5L4 Heavy chain

<400> 100

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

BSP 53661_ST25.txt

Lys Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser
130 135 140

Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln Ala Pro
145 150 155 160

Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly Val Thr
165 170 175

His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
180 185 190

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser
210 215 220

Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr
225 230 235 240

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
245 250 255

Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
260 265 270

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
275 280 285

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
290 295 300

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly
305 310 315 320

Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys
325 330 335

Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345

<210> 101

<211> 327

<212> PRT

<213> Artificial Sequence

<220>

<223> H5L7 Light chain

<400> 101

Asp Ile Val Leu Thr Gln Pro His Ser Val Ser Ala Ser Pro Gly Lys

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

275

280

285

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

Tyr Ala Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys
 305 310 315 320

Ser Phe Asn Arg Gly Glu Cys
 325

<210> 102
 <211> 347
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H5L7 Heavy chain

<400> 102

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125

Lys Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser
 130 135 140

Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln Ala Pro
 145 150 155 160

Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly Val Thr
 165 170 175

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His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
180 185 190

Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser
210 215 220

Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr
225 230 235 240

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
245 250 255

Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
260 265 270

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
275 280 285

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
290 295 300

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly
305 310 315 320

Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys
325 330 335

Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345

<210> 103
<211> 325
<212> PRT
<213> Artificial Sequence

<220>
<223> H5L8 Light chain

<400> 103

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
Seite 112

50

55

60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105 110

Asp Asp Asp Asp Lys Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly Glu
 115 120 125

Arg Ala Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Ser Ser Tyr
 130 135 140

Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu Ile
 145 150 155 160

Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser Gly
 165 170 175

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu Pro
 180 185 190

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

Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
 210 215 220

Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
 225 230 235 240

Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
 245 250 255

Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu
 260 265 270

Ser Val Thr Glu Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser
 275 280 285

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

Cys Glu Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe
 305 310 315 320

Asn Arg Gly Glu Cys

<210> 104
 <211> 347
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H5L8 Heavy chain

<400> 104

Gln Val Gln Leu Val Glu Ser Gly Gly Thr Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Thr Asp Ala
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Leu Glu Trp Val
 35 40 45
 Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
 115 120 125
 Lys Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser
 130 135 140
 Gly Phe Thr Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln Ala Pro
 145 150 155 160
 Gly Lys Gly Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly Val Thr
 165 170 175
 His Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn
 180 185 190
 Ala Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp
 195 200 205
 Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser
 210 215 220

BSP 53661_ST25.txt

Tyr Glu Asn Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr
225 230 235 240

Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro
245 250 255

Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val
260 265 270

Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala
275 280 285

Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly
290 295 300

Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly
305 310 315 320

Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys
325 330 335

Val Asp Lys Lys Val Glu Pro Lys Cys Glu Phe
340 345

<210> 105
<211> 333
<212> PRT
<213> Artificial Sequence

<220>
<223> H6L1 Light chain

<400> 105

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

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

Tyr Val Gln Trp Tyr Gln Gln Arg Pro Gly Ser Ser Pro Thr Thr Val
35 40 45

Ile Tyr Glu Asp Asn His Arg Pro Ser Gly Val Pro Asp Arg Phe Ser
50 55 60

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

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

Asn Asn Leu Val Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
Seite 115

100

105

110

Ala Ser Asp₁₁₅ Asp Asp Asp Lys Glu₁₂₀ Ile Val Leu Thr Gln₁₂₅ Ser Pro Gly

Thr Leu₁₃₀ Ser Leu Ser Pro Gly₁₃₅ Glu Arg Ala Thr Leu₁₄₀ Ser Cys Arg Ala

Ser Gln Ser Val Ser₁₅₀ Ser Ser Tyr Leu Ala Trp₁₅₅ Tyr Gln Gln Lys Pro₁₆₀

Gly Gln Ala Pro Arg₁₆₅ Leu Leu Ile Tyr Gly₁₇₀ Ala Ser Ser Arg Ala₁₇₅ Thr

Gly Ile Pro Asp₁₈₀ Arg Phe Ser Gly₁₈₅ Ser Gly Ser Gly Thr Asp₁₉₀ Phe Thr

Leu Thr Ile₁₉₅ Ser Arg Leu Glu Pro₂₀₀ Glu Asp Phe Ala Val₂₀₅ Tyr Tyr Cys

Gln Gln Tyr Ser Ser Ser Leu₂₁₅ Thr Phe Gly Gly₂₂₀ Gly Thr Lys Val Glu

Ile Lys Arg Thr Val Ala₂₃₀ Ala Pro Ser Val Phe₂₃₅ Ile Phe Pro Pro Ser₂₄₀

Asp Glu Gln Leu Lys₂₄₅ Ser Gly Thr Ala Ser₂₅₀ Val Val Cys Leu₂₅₅ Leu Asn

Asn Phe Tyr Pro₂₆₀ Arg Glu Ala Lys Val₂₆₅ Gln Trp Lys Val Asp₂₇₀ Asn Ala

Leu Gln Ser₂₇₅ Gly Asn Ser Gln Glu₂₈₀ Ser Val Thr Glu Gln₂₈₅ Asp Ser Lys

Asp Ser₂₉₀ Thr Tyr Ser Leu Ser₂₉₅ Ser Thr Leu Thr Leu₃₀₀ Ser Lys Ala Asp

Tyr Glu Lys His Lys Val₃₁₀ Tyr Ala Cys Glu Val₃₁₅ Thr His Gln Gly Leu₃₂₀

Ser Ser Pro Val Thr₃₂₅ Lys Ser Phe Asn Arg Gly Glu Cys₃₃₀

<210> 106

<211> 344

<212> PRT

<213> Artificial sequence

<220>

<223> H6L1 Heavy chain

<400> 106

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Gln Val Gln Leu Val Glu Ser Gly Gly Thr Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Thr Asp Ala
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Leu Glu Trp Val
 35 40 45
 Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Val Leu Ser Leu Thr Asp Tyr Tyr Trp Tyr Gly Met Asp Val
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Leu Val
 115 120 125
 Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr
 130 135 140
 Phe Ser Ser Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly
 145 150 155 160
 Leu Glu Trp Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala
 165 170 175
 Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn
 180 185 190
 Ser Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
 195 200 205
 Tyr Tyr Cys Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn
 210 215 220
 Asp Ala Phe Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser
 225 230 235 240
 Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys
 245 250 255
 Ser Thr Ser Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr
 260 265 270

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Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser
275 280 285

Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser
290 295 300

Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
305 310 315 320

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys
325 330 335

Lys Val Glu Pro Lys Cys Glu Phe
340

<210> 107
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L5a Heavy chain

<400> 107

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

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

145 150 160

Tyr Val Met His Trp₁₆₅ Leu Arg Gln Ala Pro₁₇₀ Gly Lys Gly Leu Glu₁₇₅ Trp

Val Ser Val Ile₁₈₀ Gly Thr Gly Gly Val₁₈₅ Thr His Tyr Ala Asp₁₉₀ Ser Val

Lys Gly Arg₁₉₅ Phe Thr Ile Ser Arg₂₀₀ Asp Asn Ala Lys Asn₂₀₅ Ser Leu Tyr

Leu Gln₂₁₀ Met Asn Ser Leu Arg₂₁₅ Ala Glu Asp Thr Ala₂₂₀ Val Tyr Tyr Cys

Ala Arg Trp Gly Tyr Tyr₂₃₀ Gly Ser Gly Ser Tyr₂₃₅ Glu Asn Asp Ala Phe₂₄₀

Asp Ile Trp Gly Gln₂₄₅ Gly Thr Met Val Thr₂₅₀ Val Ser Ser Ala Ser₂₅₅ Thr

Lys Gly Pro Ser₂₆₀ Val Phe Pro Leu Ala₂₆₅ Pro Ser Ser Lys Ser₂₇₀ Thr Ser

Gly Gly Thr₂₇₅ Ala Ala Leu Gly Cys₂₈₀ Leu Val Lys Asp Tyr₂₈₅ Phe Pro Glu

Pro Val Thr Val Ser Trp Asn₂₉₅ Ser Gly Ala Leu Thr₃₀₀ Ser Gly Val His

Thr Phe Pro Ala Val Leu₃₁₀ Gln Ser Ser Gly Leu₃₁₅ Tyr Ser Leu Ser Ser₃₂₀

Val Val Thr Val Pro₃₂₅ Ser Ser Ser Leu Gly₃₃₀ Thr Gln Thr Tyr Ile₃₃₅ Cys

Asn Val Asn His₃₄₀ Lys Pro Ser Asn Thr₃₄₅ Lys Val Asp Lys Lys₃₅₀ Val Glu

Pro Lys Cys₃₅₅ Glu Phe

<210> 108
<211> 357
<212> PRT
<213> Artificial Sequence

<220>
<223> H1L5a Heavy chain

<400> 108

Gln val Gln Leu val₅ Glu ser Gly Gly Thr₁₀ Leu Val Gln Pro Gly₁₅ Gly

1

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ser Asp Asp Asp Asp
115 120 125

Lys Glu Val Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly
130 135 140

Gly Ser Leu Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser
145 150 155 160

Tyr Val Met His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp
165 170 175

Val Ser Val Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val
180 185 190

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
195 200 205

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
210 215 220

Ala Arg Trp Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe
225 230 235 240

Asp Ile Trp Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr
245 250 255

Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser
260 265 270

Gly Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
275 280 285

BSP 53661_ST25.txt

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His
290 295 300

Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser
305 310 315 320

Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys
325 330 335

Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu
340 345 350

Pro Lys Cys Glu Phe
355

<210> 109
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L1a Heavy chain

<400> 109

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
Seite 121

145 150 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 110
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L1a Heavy chain

<400> 110

Gln val Gln Leu val Glu ser Gly Gly Thr Leu Val Gln Pro Gly Gly
1 5 10 15

BSP 53661_ST25.txt

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

BSP 53661_ST25.txt

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 111
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L2a Heavy chain

<400> 111

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
seite 124

145 150 155 160
 His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
 165 170 175
 Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
 180 185 190
 Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
 195 200 205
 Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
 210 215 220
 Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
 225 230 235 240
 Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 245 250 255
 Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
 260 265 270
 Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 275 280 285
 Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 290 295 300
 Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 305 310 315 320
 Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
 325 330 335
 His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
 340 345 350

Glu Phe

<210> 112
 <211> 354
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2L2a Heavy chain

<400> 112

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

BSP 53661_ST25.txt

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

BSP 53661_ST25.txt

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 113
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L4a Heavy chain

<400> 113

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met

145 150 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 114
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L4a Heavy chain

<400> 114

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

BSP 53661_ST25.txt

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

BSP 53661_ST25.txt

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 115
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L5a Heavy chain

<400> 115

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
Seite 130

145 150 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 116
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L5a Heavy chain

<400> 116

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

BSP 53661_ST25.txt

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

BSP 53661_ST25.txt

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 117
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L7a Heavy chain

<400> 117

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met

145 150 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 118
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L7a Heavy chain

<400> 118

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

BSP 53661_ST25.txt

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
145 150 155 160

His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
165 170 175

Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
180 185 190

Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
195 200 205

Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
210 215 220

Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
225 230 235 240

Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
245 250 255

Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
260 265 270

Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
275 280 285

BSP 53661_ST25.txt

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe

<210> 119
<211> 354
<212> PRT
<213> Artificial Sequence

<220>
<223> H2L8a Heavy chain

<400> 119

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

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

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

Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
100 105 110

Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
115 120 125

Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
130 135 140

Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met

145 150 155 160
 His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
 165 170 175
 Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
 180 185 190
 Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
 195 200 205
 Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
 210 215 220
 Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
 225 230 235 240
 Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 245 250 255
 Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
 260 265 270
 Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 275 280 285
 Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
 290 295 300
 Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
 305 310 315 320
 Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
 325 330 335
 His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
 340 345 350

Glu Phe

<210> 120
 <211> 354
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> H2L8a Heavy chain

<400> 120

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

BSP 53661_ST25.txt

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ser Phe Thr Asp Ala
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Glu Leu Glu Trp Val
 35 40 45
 Ser Ser Ile Ser Gly Ser Gly Gly Ser Thr Tyr Tyr Ala Gly Ser Val
 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 Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala Ala
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Asp Asp Asp Asp Lys Glu Val
 115 120 125
 Gln Leu Val Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly Ser Leu
 130 135 140
 Arg Leu Ser Cys Ala Gly Ser Gly Phe Thr Phe Ser Ser Tyr Val Met
 145 150 155 160
 His Trp Leu Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val Ser Val
 165 170 175
 Ile Gly Thr Gly Gly Val Thr His Tyr Ala Asp Ser Val Lys Gly Arg
 180 185 190
 Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr Leu Gln Met
 195 200 205
 Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys Ala Arg Trp
 210 215 220
 Gly Tyr Tyr Gly Ser Gly Ser Tyr Glu Asn Asp Ala Phe Asp Ile Trp
 225 230 235 240
 Gly Gln Gly Thr Met Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro
 245 250 255
 Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr
 260 265 270
 Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr
 275 280 285

BSP_53661_ST25.txt

Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro
290 295 300

Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr
305 310 315 320

Val Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn
325 330 335

His Lys Pro Ser Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Cys
340 345 350

Glu Phe