

SEQUENCE LISTING

<110> MacroGenics, Inc.
 <120> Tri-Specific Binding Molecules That Specifically Bind to Multiple Cancer Antigens and Methods of Use Thereof
 <130> MAC-0060-US
 <140> 15/313,765
 <141> 2016-11-23
 <150> PCT/US2015/033081
 <151> 2015-05-29
 <150> US 62/107,824
 <151> 2015-01-26
 <150> US 62/008,229
 <151> 2014-06-05
 <150> US 62/004,571
 <151> 2014-05-29
 <160> 322
 <170> PatentIn version 3.5
 <210> 1
 <211> 217
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> MISC_FEATURE
 <222> (1)..(217)
 <223> Human wild-Type IgG CH2-CH3 Domain
 <400> 1
 Ala Pro Glu Leu Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys
 1 5 10 15
 Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
 20 25 30
 Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
 35 40 45
 Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
 50 55 60
 Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
 65 70 75 80
 Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
 85 90 95
 Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
 100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
115 120 125

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

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
165 170 175

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215

<210> 2
<211> 440
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(440)
<223> Human DR5 Precursor (NCBI Sequence NP_003833.4)

<400> 2

Met Glu Gln Arg Gly Gln Asn Ala Pro Ala Ala Ser Gly Ala Arg Lys
1 5 10 15

Arg His Gly Pro Gly Pro Arg Glu Ala Arg Gly Ala Arg Pro Gly Leu
20 25 30

Arg Val Pro Lys Thr Leu Val Leu Val Val Ala Ala Val Leu Leu Leu
35 40 45

Val Ser Ala Glu Ser Ala Leu Ile Thr Gln Gln Asp Leu Ala Pro Gln
50 55 60

Gln Arg Val Ala Pro Gln Gln Lys Arg Ser Ser Pro Ser Glu Gly Leu
65 70 75 80

Cys Pro Pro Gly His His Ile Ser Glu Asp Gly Arg Asp Cys Ile Ser
85 90 95

Cys Lys Tyr Gly Gln Asp Tyr Ser Thr His Trp Asn Asp Leu Leu Phe
100 105 110

Cys Leu Arg Cys Thr Arg Cys Asp Ser Gly Glu Val Glu Leu Ser Pro
Page 2

115					120					125					
Cys	Thr	Thr	Thr	Arg	Asn	Thr	Val	Cys	Gln	Cys	Glu	Glu	Gly	Thr	Phe
130					135					140					
Arg	Glu	Glu	Asp	Ser	Pro	Glu	Met	Cys	Arg	Lys	Cys	Arg	Thr	Gly	Cys
145					150					155					160
Pro	Arg	Gly	Met	Val	Lys	Val	Gly	Asp	Cys	Thr	Pro	Trp	Ser	Asp	Ile
				165					170					175	
Glu	Cys	Val	His	Lys	Glu	Ser	Gly	Thr	Lys	His	Ser	Gly	Glu	Ala	Pro
			180					185					190		
Ala	Val	Glu	Glu	Thr	Val	Thr	Ser	Ser	Pro	Gly	Thr	Pro	Ala	Ser	Pro
		195					200					205			
Cys	Ser	Leu	Ser	Gly	Ile	Ile	Ile	Gly	Val	Thr	Val	Ala	Ala	Val	Val
	210					215					220				
Leu	Ile	Val	Ala	Val	Phe	Val	Cys	Lys	Ser	Leu	Leu	Trp	Lys	Lys	Val
225					230					235					240
Leu	Pro	Tyr	Leu	Lys	Gly	Ile	Cys	Ser	Gly	Gly	Gly	Gly	Asp	Pro	Glu
				245					250					255	
Arg	Val	Asp	Arg	Ser	Ser	Gln	Arg	Pro	Gly	Ala	Glu	Asp	Asn	Val	Leu
			260					265					270		
Asn	Glu	Ile	Val	Ser	Ile	Leu	Gln	Pro	Thr	Gln	Val	Pro	Glu	Gln	Glu
		275					280					285			
Met	Glu	Val	Gln	Glu	Pro	Ala	Glu	Pro	Thr	Gly	Val	Asn	Met	Leu	Ser
	290					295					300				
Pro	Gly	Glu	Ser	Glu	His	Leu	Leu	Glu	Pro	Ala	Glu	Ala	Glu	Arg	Ser
305					310					315					320
Gln	Arg	Arg	Arg	Leu	Leu	Val	Pro	Ala	Asn	Glu	Gly	Asp	Pro	Thr	Glu
				325					330					335	
Thr	Leu	Arg	Gln	Cys	Phe	Asp	Asp	Phe	Ala	Asp	Leu	Val	Pro	Phe	Asp
			340					345					350		
Ser	Trp	Glu	Pro	Leu	Met	Arg	Lys	Leu	Gly	Leu	Met	Asp	Asn	Glu	Ile
		355					360					365			
Lys	Val	Ala	Lys	Ala	Glu	Ala	Ala	Gly	His	Arg	Asp	Thr	Leu	Tyr	Thr
	370					375					380				
Met	Leu	Ile	Lys	Trp	Val	Asn	Lys	Thr	Gly	Arg	Asp	Ala	Ser	Val	His
385					390					395					400

Thr Leu Leu Asp Ala Leu Glu Thr Leu Gly Glu Arg Leu Ala Lys Gln
405 410 415

Lys Ile Glu Asp His Leu Leu Ser Ser Gly Lys Phe Met Tyr Leu Glu
420 425 430

Gly Asn Ala Asp Ser Ala Met Ser
435 440

<210> 3
<211> 111
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(111)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Light Chain Variable
Domain

<400> 3

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

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

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

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

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

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

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

<210> 4
<211> 15
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(15)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Light Chain Variable
Domain CDRL1

<400> 4

Arg Ala Ser Lys Ser Val Ser Ser Ser Gly Tyr Ser Tyr Met His

1

5

10

15

<210> 5
 <211> 7
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(7)
 <223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Light Chain Variable Domain CDRL2

<400> 5

Leu Ser Ser Asn Leu Asp Ser
 1 5

<210> 6
 <211> 9
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(9)
 <223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Light Chain Variable Domain CDRL3

<400> 6

Gln His Ser Arg Asp Leu Pro Pro Thr
 1 5

<210> 7
 <211> 333
 <212> DNA
 <213> Mus musculus

<220>
 <221> misc_feature
 <222> (1)..(333)
 <223> Polynucleotide Encoding Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Light Chain Variable Domain

<400> 7
 gacattgtgc tgacacagtc tcctgcttcc ttagctgtat ctctcgggca gagggccacc 60
 atctcatgca gggccagcaa aagtgtcagt tcctctggct atagttatat gcactggtac 120
 caacagaaac caggacagcc acccaaagtc ctcatctttc tttcatccaa cctagattct 180
 ggggtccctg ccagggtcag tggcagtggg tctgggacag acttcaccct caacatccat 240
 cctgtggagg atggggatgc tgcaacctat tactgtcagc acagtaggga tcttcctccg 300
 acgttcggtg gaggcaccaa gctggaaatc aaa 333

<210> 8
 <211> 121
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE

<222> (1)..(121)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Heavy Chain Variable Domain

<400> 8

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

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

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

Gly Glu Ile Asn Pro Asp Ser Asn Thr Ile Asn Tyr Thr Pro Ser Leu
50 55 60

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

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

Thr Arg Arg Ala Tyr Tyr Gly Asn Pro Ala Trp Phe Ala Tyr Trp Gly
100 105 110

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 9
<211> 10
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Heavy Chain Variable Domain CDRH1

<400> 9

Gly Phe Asp Phe Ser Arg Tyr Trp Met Ser
1 5 10

<210> 10
<211> 17
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(17)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Heavy Chain Variable Domain CDRH2

<400> 10

Glu Ile Asn Pro Asp Ser Asn Thr Ile Asn Tyr Thr Pro Ser Leu Lys

1 5 10 15

Asp

<210> 11
 <211> 12
 <212> PRT
 <213> Mus musculus
 <220>
 <221> MISC_FEATURE
 <222> (1)..(12)
 <223> Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Heavy Chain Variable Domain CDRH3

<400> 11

Arg Ala Tyr Tyr Gly Asn Pro Ala Trp Phe Ala Tyr
 1 5 10

<210> 12
 <211> 363
 <212> DNA
 <213> Mus musculus
 <220>
 <221> misc_feature
 <222> (1)..(363)
 <223> Polynucleotide Encoding Murine Anti-Human DR5 Antibody ("DR5 mAb 1") Heavy Chain Variable Domain

<400> 12
 gaggtgaagt ttctcgagtc tggaggtggc ctggtgcagc ctggaggatc cctgaaactc 60
 tcctgtgtag cctcaggatt cgattttagt agatactgga tgagttgggt ccggcaggct 120
 ccagggaaag ggctagaatg gattggagaa attaatccag atagcaatac gataaactat 180
 acgccatctc taaaggataa attcatcatc tccagagaca acgcaaaaaa tacgctgtat 240
 ctgcaaatga ccaaagttag atctgaggac acagcccttt attattgtac aagaagggcc 300
 tactatggta acccggcctg gtttgcttac tggggccaag ggactctggt cactgtctct 360
 tcc 363

<210> 13
 <211> 107
 <212> PRT
 <213> Mus musculus
 <220>
 <221> MISC_FEATURE
 <222> (1)..(107)
 <223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Light Chain Variable Domain

<400> 13

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

Asp Arg Val Ser Ile Thr Cys Lys Ala Ser Gln Asp Val Asn Thr Ala

20

25

30

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

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

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

Glu Asp Leu Thr Leu Tyr Tyr Cys Gln Gln His Tyr Ile Thr Pro Trp
 85 90 95

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

<210> 14

<211> 11

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(11)

<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Light Chain Variable Domain CDRL1

<400> 14

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

<210> 15

<211> 7

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(7)

<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Light Chain Variable Domain CDRL2

<400> 15

Trp Ala Ser Thr Arg His Thr
 1 5

<210> 16

<211> 9

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(9)

<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Light Chain Variable Domain CDRL3

<400> 16

Gln Gln His Tyr Ile Thr Pro Trp Thr
1 5

<210> 17
<211> 321
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<222> (1)..(321)
<223> Polynucleotide Encoding Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Light Chain Variable Domain

<400> 17
gacattgtga tgaccagtc tcacaaattc atgtccactt cagtaggaga cagggtcagc 60
atcacctgca aggccagtca ggatgtgaat actgctgtag cctggtatca acaaaaacca 120
gggcaatctc ctaaactact gatttactgg gcatccaccc ggcacactgg agtccctgat 180
cgcttcacag gcagtggatc tgggacagat tatacactca ccatcaaaag tgtgcaggct 240
gaagacctga cactttatta ctgtcagcaa cactatatca ctccgtggac gttcgggtgga 300
ggcaccaagc tggaaatcaa a 321

<210> 18
<211> 119
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(119)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Heavy Chain Variable Domain

<400> 18
Lys Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
1 5 10 15

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

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

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

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

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

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

Thr Thr Leu Thr Val Ser Ser
115

<210> 19
<211> 10
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Heavy Chain Variable
Domain CDRH1

<400> 19

Gly Tyr Thr Phe Thr Glu Tyr Ile Leu His
1 5 10

<210> 20
<211> 17
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(17)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Heavy Chain Variable
Domain CDRH2

<400> 20

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

Asp

<210> 21
<211> 10
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Heavy Chain Variable
Domain CDRH3

<400> 21

His Glu Gln Gly Pro Gly Tyr Phe Asp Tyr
1 5 10

<210> 22
<211> 357
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<222> (1)..(357)

<223> Polynucleotide Encoding Murine Anti-Human DR5 Antibody ("DR5 mAb 2") Heavy Chain Variable Domain

<400> 22
aaggtccagc tgcagcagtc tggagctgaa ctggtgaaac ccggggcatc agtgaagctg 60
tcctgcaagg cttctgggta caccttcact gagtatattt tacactgggt aaagcagaag 120
tctggacagg gtcttgagtg gattgggtgg ttttatcctg gaaataataa tataaagtac 180
aatgagaaat tcaaggacaa ggccacactg actgcggaaca aatcctccag cacagtctat 240
atggaactta gtagattgac atctgaagac tctgcggtct atttctgtgc aagacacgaa 300
caaggaccag gttactttga ctactggggc caaggcacca ctctcacagt ctctctcc 357

<210> 23
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VL-2") Light Chain Variable Domain

<400> 23
Asp Ile Gln Met Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Asn Thr Ala
20 25 30
Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45
Tyr Trp Ala Ser Thr Arg His Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Val Ala Thr Tyr Tyr Cys Gln Gln His Tyr Ile Thr Pro Trp
85 90 95
Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 24
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VL-2") Light Chain Variable Domain

<400> 24
gatattcaga tgaccagag tccctcattt ctgtccgcct ccgtcgggtga ccgcgtgact 60
attacttgta aagcttctca ggatgtcaac accgccgtgg cttggtacca gcagaagccc 120

ggtaaagcac ctaagctgct gatctattgg gccagcactc ggcacaccgg agtcccatct 180
 aggttctctg gcagtggatc agggacagac tttaccctga caattagctc cctgcagccc 240
 gaggatgtgg ctacttacta ttgtcagcag cactacatca ctccttggac cttcggcggg 300
 ggcacaaaac tggaaatcaa a 321

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

<220>
 <223> Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VL-3") Light Chain Variable Domain

<400> 25

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

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

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

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

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

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

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

<210> 26
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VL-3") Light Chain Variable Domain

<400> 26

gatattcaga tgaccagag tccctcattt ctgtccgcct ccgtcgggtga ccgcgtgact 60
 attacttgtc gggcttctca ggatgtcaac accgccgtgg cttggtacca gcagaagccc 120
 ggtaaagcac ctaagctgct gatctattgg gccagcactc ggcacaccgg agtccagat 180
 aggttctctg gcagtggatc agggacagac tttaccctga caattagctc cctgcagccc 240
 gaggatgtgg ctacttacta ttgtcagcag cactacatca ctccttggac cttcggcggg 300

ggcacaaaac tggaaatcaa a

321

<210> 27
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Murine Anti-Human DR5 Antibody ("DR5 mAb 4") Light Chain Variable Domain

<400> 27

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

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

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

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

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

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

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

<210> 28
<211> 321
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VL-4") Light Chain Variable Domain

<400> 28

gatattcaga tgaccagag tccctcattt ctgtccgcct ccgtcgggtga ccgcgtgact 60
attacttgtc gggcttctca ggatgtcaac accgccgtgg cttggtacca gcagaagccc 120
ggtaaagcac ctaagctgct gatctattgg gccagcactc ggacacaccg agtcccatct 180
aggttctctg gcagtggatc agggacagac tttaccctga caattagctc cctgcagcca 240
gaggatatcg ctacatacta ttgtcagcag cactacatca ctccttggac cttcggcggg 300
ggcacaaaac tggaaatcaa a 321

<210> 29
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
 <223> Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VL-5") Light Chain Variable Domain

<400> 29

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

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

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

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

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

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

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

<210> 30
 <211> 321
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VL-5") Light Chain Variable Domain

<400> 30

gatattcaga tgaccagag tccctcattt ctgtccgcct ccgtcggtga ccgcgtgact	60
attacttgtc gggcttctca ggatgtcaac accgccgtgg cttggtacca gcagaagccc	120
ggtaaagcac ctaagctgct gatctattgg gccagcactc ggcacaccgg agtcccagat	180
aggttctctg gcagtggatc agggacagac tttaccctga caattagctc cctgcagccc	240
gaggatatcg ctacttacta ttgtcagcag cactacatca ctccttggac cttcggcggg	300
ggcacaaaac tggaaatcaa a	321

<210> 31
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human DR5 Antibody ("hDR5 mAb 2 VH-2") Heavy Chain Variable Domain

<400> 31

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

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

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 32
<211> 357
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Humanized Anti-Human DR5 Antibody ("hDR5
mAb 2 VH-2") Heavy Chain Variable Domain

<400> 32
caggtccagc tgggtgcagag tggggcagag gtgaaaaagc caggggcatc agtgaaagtg 60
tcttgtaaag catcagggtta tacatttact gagtacatcc tgcactgggt gcgacaggca 120
ccaggacagg gactggaatg gatgggggtg ttctaccctg gcaacaacaa cattaagtac 180
aacgagaagt ttaaagaccg ggtgaccatc acagcggata agtctaccag tacagtctat 240
atggagctga gctccctgag aagcgaagac accgccgtct actattgctc tcgccacgaa 300
caggggtccag gttactttga ttattggggg caggggaactc tggtcacagt cagctcc 357

<210> 33
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Linker 1

<400> 33

Gly Gly Gly Ser Gly Gly Gly Gly
1 5

<210> 34
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Cysteine-Containing Spacer Peptide ("Linker 2")

<400> 34

Gly Gly Cys Gly Gly Gly
1 5

<210> 35
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Cysteine-Containing Peptide Variant of Human IgG Hinge Domain

<400> 35

Gly Val Glu Pro Lys Ser Cys
1 5

<210> 36
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Cysteine-Containing Peptide Variant of Human IgG Hinge Domain

<400> 36

Val Glu Pro Lys Ser Cys
1 5

<210> 37
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Cysteine-Containing Peptide Variant of Human IgG CL Domain

<400> 37

Gly Phe Asn Arg Gly Glu Cys
1 5

<210> 38
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Cysteine-Containing Peptide Variant of Human IgG CL Domain

<400> 38

Phe Asn Arg Gly Glu Cys
1 5

<210> 39
 <211> 28
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Heterodimer-Promoting "E-coil" Domain

 <400> 39
 Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val
 1 5 10 15

Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys
 20 25

<210> 40
 <211> 28
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Heterodimer-Promoting "K-coil" Domain

 <400> 40
 Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu Lys Val
 1 5 10 15

Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
 20 25

<210> 41
 <211> 28
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Cysteine-Containing Heterodimer-Promoting "E-coil" Domain

 <400> 41
 Glu Val Ala Ala Cys Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val
 1 5 10 15

Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys
 20 25

<210> 42
 <211> 28
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Cysteine-Containing Heterodimer-Promoting "K-coil" Domain

 <400> 42
 Lys Val Ala Ala Cys Lys Glu Lys Val Ala Ala Leu Lys Glu Lys Val
 1 5 10 15

Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
20 25

<210> 43
<211> 46
<212> PRT
<213> Streptococcus dysgalactiae

<220>
<221> MISC_FEATURE
<222> (1)..(46)
<223> Albumin-Binding Domain 3 (ABD3) of Protein G of Streptococcus Strain G148

<400> 43

Leu Ala Glu Ala Lys Val Leu Ala Asn Arg Glu Leu Asp Lys Tyr Gly
1 5 10 15

Val Ser Asp Tyr Tyr Lys Asn Leu Ile Asp Asn Ala Lys Ser Ala Glu
20 25 30

Gly Val Lys Ala Leu Ile Asp Glu Ile Leu Ala Ala Leu Pro
35 40 45

<210> 44
<211> 46
<212> PRT
<213> Artificial Sequence

<220>
<223> Variant Deimmunized Albumin-Binding Domain 3 (ABD3) of Protein G of Streptococcus Strain G148

<400> 44

Leu Ala Glu Ala Lys Val Leu Ala Asn Arg Glu Leu Asp Lys Tyr Gly
1 5 10 15

Val Ser Asp Tyr Tyr Lys Asn Ala Ala Asn Asn Ala Lys Thr Val Glu
20 25 30

Gly Val Lys Ala Leu Ile Ala Glu Ile Leu Ala Ala Leu Pro
35 40 45

<210> 45
<211> 46
<212> PRT
<213> Artificial Sequence

<220>
<223> Variant Deimmunized Albumin-Binding Domain 3 (ABD3) of Protein G of Streptococcus Strain G148

<400> 45

Leu Ala Glu Ala Lys Val Leu Ala Asn Arg Glu Leu Asp Lys Tyr Gly
1 5 10 15

Val Ser Asp Tyr Tyr Lys Asn Leu Ile Ser Asn Ala Lys Ser Val Glu
20 25 30

Gly Val Lys Ala Leu Ile Ala Glu Ile Leu Ala Ala Leu Pro
35 40 45

<210> 46
<211> 4
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide Linker ("Linker 3")

<400> 46

Gly Gly Gly Ser
1

<210> 47
<211> 5
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide Linker

<400> 47

Ala Ser Thr Lys Gly
1 5

<210> 48
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide Linker

<400> 48

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

<210> 49
<211> 6
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide Linker

<400> 49

Leu Glu Pro Lys Ser Ser
1 5

<210> 50
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Peptide Linker

<400> 50

Ala Pro Ser Ser Ser Pro Met Glu
1 5

<210> 51

<211> 16

<212> PRT

<213> Artificial Sequence

<220>

<223> Peptide Linker

<400> 51

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

<210> 52

<211> 217

<212> PRT

<213> Artificial Sequence

<220>

<223> "Knob-Bearing" Variant Human IgG Fc Domain

<400> 52

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

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
20 25 30

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
50 55 60

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
85 90 95

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
115 120 125

Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro
130 135 140

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
165 170 175

Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
180 185 190

Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln
195 200 205

Lys Ser Leu Ser Leu Ser Pro Gly Lys
210 215

<210> 53
<211> 217
<212> PRT
<213> Artificial Sequence

<220>
<223> "Hole-Bearing" Variant Human IgG Fc Domain

<400> 53

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

Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val
20 25 30

Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr
35 40 45

Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu
50 55 60

Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His
65 70 75 80

Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys
85 90 95

Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln
100 105 110

Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met
115 120 125

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

Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn
145 150 155 160

Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu
Page 21

165 170 175
 Val Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val
 180 185 190
 Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn Arg Tyr Thr Gln
 195 200 205
 Lys Ser Leu Ser Leu Ser Pro Gly Lys
 210 215

 <210> 54
 <211> 108
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> MISC_FEATURE
 <222> (1)..(108)
 <223> human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Light
 Chain Variable Domain

 <400> 54
 Ser Glu Leu Thr Gln Asp Pro Ala Val Ser Val Ala Leu Gly Gln Thr
 1 5 10 15
 Val Arg Ile Thr Cys Ser Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
 20 25 30
 Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Val Leu Val Ile Tyr Gly
 35 40 45
 Ala Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
 50 55 60
 Ser Gly Asn Thr Ala Ser Leu Thr Ile Thr Gly Ala Gln Ala Glu Asp
 65 70 75 80
 Glu Ala Asp Tyr Tyr Cys Asn Ser Ala Asp Ser Ser Gly Asn His Val
 85 90 95
 Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly
 100 105

 <210> 55
 <211> 11
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> MISC_FEATURE
 <222> (1)..(11)
 <223> Human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Light
 Chain Variable Domain CDRL1

 <400> 55

Ser Gly Asp Ser Leu Arg Ser Tyr Tyr Ala Ser
1 5 10

<210> 56
<211> 7
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(7)
<223> Human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Light
Chain Variable Domain CDRL2

<400> 56

Gly Ala Asn Asn Arg Pro Ser
1 5

<210> 57
<211> 11
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(11)
<223> Human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Light
Chain Variable Domain CDRL3

<400> 57

Asn Ser Ala Asp Ser Ser Gly Asn His Val Val
1 5 10

<210> 58
<211> 121
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(121)
<223> Human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Heavy
Chain Variable Domain

<400> 58

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

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

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

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

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

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

Ala Lys Ile Leu Gly Ala Gly Arg Gly Trp Tyr Phe Asp Tyr Trp Gly
100 105 110

Lys Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 59
<211> 10
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> Human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Heavy
Chain Variable Domain CDRH1

<400> 59

Gly Phe Thr Phe Asp Asp Tyr Ala Met Ser
1 5 10

<210> 60
<211> 16
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(16)
<223> Human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Heavy
Chain Variable Domain CDRH3

<400> 60

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

<210> 61
<211> 12
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(12)
<223> Human Anti-Human DR5 Antibody (Drozitumab; "DR5 mAb 3") Heavy
Chain Variable Domain CDRH3

<400> 61

Ile Leu Gly Ala Gly Arg Gly Trp Tyr Phe Asp Tyr
1 5 10

<210> 62
<211> 108
<212> PRT
<213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(108)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Light Chain Variable Domain

<400> 62

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 Gly Ile Ser Arg Ser
 20 25 30

Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ser 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 Phe Gly Ser Ser Pro
 85 90 95

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

<210> 63
 <211> 12
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(12)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Light Chain Variable Domain CDRL1

<400> 63

Arg Ala Ser Gln Gly Ile Ser Arg Ser Tyr Leu Ala
 1 5 10

<210> 64
 <211> 7
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(7)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Light Chain Variable Domain CDRL2

<400> 64

Gly Ala Ser Ser Arg Ala Thr
 1 5

<210> 65
 <211> 9
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> MISC_FEATURE
 <222> (1)..(9)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Light Chain Variable Domain CDRL3

<400> 65
 Gln Gln Phe Gly Ser Ser Pro Trp Thr
 1 5

<210> 66
 <211> 122
 <212> PRT
 <213> Homo sapiens

 <220>
 <221> MISC_FEATURE
 <222> (1)..(122)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Heavy Chain Variable Domain

<400> 66
 Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
 1 5 10 15

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
 20 25 30

Asp Tyr Phe Trp Ser Trp Ile Arg Gln Leu Pro Gly Lys Gly Leu Glu
 35 40 45

Trp Ile Gly His Ile His Asn Ser Gly Thr Thr Tyr Tyr Asn Pro Ser
 50 55 60

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

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

Cys Ala Arg Asp Arg Gly Gly Asp Tyr Tyr Tyr Gly Met Asp Val Trp
 100 105 110

Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 115 120

<210> 67
 <211> 12
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(12)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Heavy Chain Variable Domain CDRH1

<400> 67

Gly Gly Ser Ile Ser Ser Gly Asp Tyr Phe Trp Ser
 1 5 10

<210> 68
 <211> 16
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(16)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Heavy Chain Variable Domain CDRH2

<400> 68

His Ile His Asn Ser Gly Thr Thr Tyr Tyr Asn Pro Ser Leu Lys Ser
 1 5 10 15

<210> 69
 <211> 12
 <212> PRT
 <213> Homo sapiens

<220>
 <221> MISC_FEATURE
 <222> (1)..(12)
 <223> Human Anti-Human DR5 Antibody (Conatumumab; "DR5 mAb 4") Heavy Chain Variable Domain CDRH3

<400> 69

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

<210> 70
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human DR5 Antibody (Tigatumumab; "DR5 mAb 5") Light Chain Variable Domain

<400> 70

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

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

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

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

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

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

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

<210> 71
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human DR5 Antibody (Tigatumumab; "DR5 mAb 5")
Light Chain Variable Domain CDRL1

<400> 71

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

<210> 72
<211> 7
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human DR5 Antibody (Tigatumumab; "DR5 mAb 5")
Light Chain Variable Domain CDRL2

<400> 72

Trp Ala Ser Thr Arg His Thr
1 5

<210> 73
<211> 8
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human DR5 Antibody (Tigatumumab; "DR5 mAb 5")
Light Chain Variable Domain CDRL3

<400> 73

Gln Gln Tyr Ser Ser Tyr Arg Thr
1 5

<210> 74
<211> 119
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human DR5 Antibody (Tigatumumab; "DR5 mAb 5")
Heavy Chain Variable Domain

<400> 74

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

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

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

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

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

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

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

Thr Leu Val Thr Val Ser Ser
115

<210> 75

<211> 10

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human DR5 Antibody (Tigatimumab; "DR5 mAb 5")
Heavy Chain Variable Domain CDRH1

<400> 75

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

<210> 76

<211> 17

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human DR5 Antibody (Tigatimumab; "DR5 mAb 5")
Heavy Chain Variable Domain CDRH2

<400> 76

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

Gly

<210> 77
<211> 10
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human DR5 Antibody (Tigatumumab; "DR5 mAb 5")
Heavy Chain Variable Domain CDRH3

<400> 77

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

<210> 78
<211> 109
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(109)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Light
Chain Variable Domain

<400> 78

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

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

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

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

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

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

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

<210> 79
<211> 8
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(8)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Light
Chain Variable Domain CDRL1

<400> 79

Gln Asp Val Asn Thr Ala Ile Ala
1 5

<210> 80
<211> 7
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(7)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Light
Chain Variable Domain CDRL2

<400> 80

Trp Ala Ser Thr Arg His Thr
1 5

<210> 81
<211> 9
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(9)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Light
Chain Variable Domain CDRL3

<400> 81

Gln Gln Trp Ser Ser Asn Pro Leu Thr
1 5

<210> 82
<211> 118
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(118)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Heavy
Chain Variable Domain

<400> 82

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

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

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

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

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

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

Ala Arg His Glu Glu Gly Ile Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Leu Thr Val Ser Ser
115

<210> 83
<211> 10
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Heavy
Chain Variable Domain CDRH1

<400> 83

Gly Tyr Thr Phe Thr Asp Tyr Thr Ile His
1 5 10

<210> 84
<211> 17
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(17)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Heavy
Chain Variable Domain CDRH2

<400> 84

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

Asp

<210> 85
<211> 9
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(9)
<223> Murine Anti-Human DR5 Antibody (LBY135-1; "DR5 mAb 6") Heavy
Chain Variable Domain CDRH3

<400> 85

His Glu Glu Gly Ile Tyr Phe Asp Tyr
1 5

<210> 86
 <211> 104
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(104)
 <223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Light Chain Variable Domain

 <400> 86

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

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

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

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

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

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

Thr Phe Gly Ser Gly Thr Lys Leu
 100

<210> 87
 <211> 11
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(11)
 <223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Light Chain Variable Domain CDRL1

<400> 87

Lys Ala Ser Gln Asp Val Asn Thr Ala Ile Ala
 1 5 10

<210> 88
 <211> 7
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(7)
 <223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Light Chain Variable Domain CDRL2

<400> 88

Trp Ala Ser Thr Arg His Thr
1 5

<210> 89

<211> 9

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(9)

<223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Light
Chain Variable Domain CDRL3

<400> 89

Gln Gln His Tyr Thr Thr Pro Phe Thr
1 5

<210> 90

<211> 118

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(118)

<223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Heavy
Chain Variable Domain

<400> 90

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

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

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

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

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

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

Ala Arg His Glu Glu Gly Ile Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Leu Thr Val Ser Ser
115

<210> 91

<211> 10
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Heavy Chain Variable Domain CDRH1

<400> 91

Gly Tyr Thr Phe Thr Asp Tyr Thr Ile His
1 5 10

<210> 92
<211> 17
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(17)
<223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Heavy Chain Variable Domain CDRH2

<400> 92

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

Asp

<210> 93
<211> 9
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(9)
<223> Murine Anti-Human DR5 Antibody (LBY135-2; "DR5 mAb 7") Heavy Chain Variable Domain CDRH3

<400> 93

His Glu Glu Gly Ile Tyr Phe Asp Tyr
1 5

<210> 94
<211> 108
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(108)
<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Light Chain Variable Domain

<400> 94

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

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

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

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

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

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

<210> 95
<211> 11
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(11)
<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Light Chain
Variable Domain CDRL1

<400> 95

Arg Ala Ser Gln Ser Val Ser Ser Tyr Leu Ala
1 5 10

<210> 96
<211> 7
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(7)
<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Light Chain
Variable Domain CDRL2

<400> 96

Asp Ala Ser Asn Arg Ala Thr
1 5

<210> 97
<211> 9
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(9)
<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Light Chain

Variable Domain CDRL3

<400> 97

Gln Gln Arg Ser Asn Trp Pro Leu Thr
1 5

<210> 98

<211> 126

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(126)

<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Heavy Chain Variable Domain

<400> 98

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

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

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

Gly Trp Met Asn Pro Asp Thr Asp Ser Thr Gly Tyr Pro Gln Lys Phe
50 55 60

Gln Gly Arg Val Thr Met Thr Arg Asn Thr Ser Ile Ser Thr Ala Tyr
65 70 75 80

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

Ala Arg Ser Tyr Gly Ser Gly Ser Tyr Tyr Arg Asp Tyr Tyr Tyr Gly
100 105 110

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

<210> 99

<211> 10

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(10)

<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Heavy Chain Variable Domain CDRH1

<400> 99

Gly Tyr Thr Phe Thr Asn Tyr Lys Ile Asn
1 5 10

<210> 100
<211> 17
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(17)
<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Heavy Chain
Variable Domain CDRH2

<400> 100

Trp Met Asn Pro Asp Thr Asp Ser Thr Gly Tyr Pro Gln Lys Phe Gln
1 5 10 15

Gly

<210> 101
<211> 17
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(17)
<223> Murine Anti-Human DR5 Antibody (KMTR2; "DR5 mAb 8") Heavy Chain
Variable Domain CDRH3

<400> 101

Ser Tyr Gly Ser Gly Ser Tyr Tyr Arg Asp Tyr Tyr Tyr Gly Met Asp
1 5 10 15

Val

<210> 102
<211> 112
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(112)
<223> Murine Anti-Human CD2 Antibody (Lo-CD2A mAb) Light Chain
Variable Domain

<400> 102

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

Gln Ser Val Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
20 25 30

Ser Gly Asn Thr Tyr Leu Asn Trp Leu Leu Gln Arg Thr Gly Gln Ser
35 40 45

Pro Gln Pro Leu Ile Tyr Leu Val Ser Lys Leu Glu Ser Gly Val Pro

50

55

60

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

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

Thr His Tyr Pro Tyr Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
100 105 110

<210> 103
<211> 118
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(118)
<223> Murine Anti-Human CD2 Antibody (Lo-CD2A mAb) Heavy Chain
Variable Domain

<400> 103

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

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

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

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

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

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

Ala Arg Gly Lys Phe Asn Tyr Arg Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ser
115

<210> 104
<211> 110
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Light Chain
Variable Domain

<400> 104

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
85 90 95

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

<210> 105

<211> 14

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Light Chain
Variable Domain CDRL1

<400> 105

Arg Ser Ser Thr Gly Ala Val Thr Thr Ser Asn Tyr Ala Asn
1 5 10

<210> 106

<211> 7

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Light Chain
Variable Domain CDRL2

<400> 106

Gly Thr Asn Lys Arg Ala Pro
1 5

<210> 107

<211> 9

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Light Chain
Variable Domain CDRL3

<400> 107

Ala Leu Trp Tyr Ser Asn Leu Trp Val
1 5

<210> 108

<211> 125

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Heavy Chain
Variable Domain

<400> 108

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

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

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

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

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

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

Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
100 105 110

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

<210> 109

<211> 5

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Heavy Chain
Variable Domain CDRH1

<400> 109

Thr Tyr Ala Met Asn
1 5

<210> 110

<211> 19

<212> PRT

<213> Artificial Sequence

<220>
<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Heavy Chain
Variable Domain CDRH2

<400> 110

Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser
1 5 10 15

Val Lys Asp

<210> 111
<211> 14
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Heavy Chain
Variable Domain CDRH3

<400> 111

His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe Ala Tyr
1 5 10

<210> 112
<211> 125
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanize Anti-Human CD3 Antibody ("CD3 mAb 2") Variant Heavy
Chain Variable Domain Containing a D65G (Kabat Numbering; D68G
in Sequence Relative to SEQ ID NO:108)

<400> 112

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

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

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

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

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

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

Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser Trp Phe
100 105 110

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

<210> 113
 <211> 19
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> CDRH2 of Humanized Anti-Human CD3 Antibody ("CD3 mAb 2") Variant Heavy Chain Variable Domain Containing a D65G (Kabat Numbering; D68G in Sequence Relative to SEQ ID NO:108)

<400> 113

Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr Ala Asp Ser
 1 5 10 15

Val Lys Gly

<210> 114
 <211> 107
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(107)
 <223> Murine Anti-Human CD3 Antibody (OKT3) Light Chain Variable Domain

<400> 114

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

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

Asn Trp Tyr Gln Gln Lys Ser Gly Thr Ser Pro Lys Arg Trp Ile Tyr
 35 40 45

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

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

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

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

<210> 115
 <211> 119
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(119)
 <223> Murine Anti-Human CD3 Antibody (OKT3) Heavy Chain Variable Domain
 <400> 115

Gln Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Ala Arg Pro Gly Ala
 1 5 10 15
 Ser Val Lys Met Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Arg Tyr
 20 25 30
 Thr Met His Trp Val Lys Gln Arg Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Tyr Ile Asn Pro Ser Arg Gly Tyr Thr Asn Tyr Asn Gln Lys Phe
 50 55 60
 Lys Asp Lys Ala Thr Leu Thr Thr Asp Lys Ser Ser Ser Thr Ala Tyr
 65 70 75 80
 Met Gln Leu Ser Ser Leu Thr Ser Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Tyr Tyr Asp Asp His Tyr Cys Leu Asp Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Leu Thr Val Ser Ser
 115

<210> 116
 <211> 111
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(111)
 <223> Murine Anti-Human CD16 Antibody (3G8) Light Chain Variable Domain
 <400> 116

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

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

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

<210> 117
<211> 118
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(118)
<223> Murine Anti-Human CD16 Antibody (3G8) Heavy Chain Variable Domain

<400> 117

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

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

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

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

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

Phe Leu Lys Ile Ala Ser Val Asp Thr Ala Asp Thr Ala Thr Tyr Tyr
85 90 95

Cys Ala Gln Ile Asn Pro Ala Trp Phe Ala Tyr Trp Gly Gln Gly Thr
100 105 110

Leu Val Thr Val Ser Ala
115

<210> 118
<211> 111
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(111)
<223> Murine Anti-Human CD16 Antibody (A9) Light Chain Variable Domain

<400> 118

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

Gly Glu Thr Val Thr Leu Thr Cys Arg Ser Asn Thr Gly Thr Val Thr
20 25 30

Thr Ser Asn Tyr Ala Asn Trp Val Gln Glu Lys Pro Asp His Leu Phe
35 40 45

Thr Gly Leu Ile Gly His Thr Asn Asn Arg Ala Pro Gly Val Pro Ala
50 55 60

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

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

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

<210> 119

<211> 117

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(117)

<223> Murine Anti-Human CD16 Antibody (A9) Heavy Chain Variable Domain

<400> 119

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

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

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

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

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

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

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

Val Thr Val Ser Ser
115

<210> 120
 <211> 108
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(108)
 <223> Murine Anti-Human CD19 Antibody (HD37) Light Chain Variable Domain

 <400> 120

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

 Glu Arg Val Thr Leu Thr Cys Lys Ala Ser Glu Asn Val Val Thr Tyr
 20 25 30

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

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

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

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

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

<210> 121
 <211> 124
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(124)
 <223> Murine Anti-Human CD19 Antibody (HD37) Heavy Chain Variable Domain

 <400> 121

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

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

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

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

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

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

Ala Arg Arg Glu Thr Thr Thr Val Gly Arg Tyr Tyr Tyr Ala Met Asp
100 105 110

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

<210> 122
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Chimeric Anti-Human CD20 Antibody (Rituximab) Light Chain
Variable Domain

<400> 122

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

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

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

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Thr Ser Asn Pro Pro Thr
85 90 95

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

<210> 123
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Chimeric Anti-Human CD20 Antibody (Rituximab) Heavy Chain
Variable Domain

<400> 123

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

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

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

Gly Ala Ile Tyr Pro Gly Asn Gly Asp Thr Ser Tyr Asn Gln Lys Phe
50 55 60

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

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

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

Ala Gly Thr Thr Val Thr Val Ser Ala
115 120

<210> 124

<211> 113

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human CD22 Antibody (Epratuzumab) Light Chain Variable Domain

<400> 124

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

Asp Arg Val Thr Met Ser Cys Lys Ser Ser Gln Ser Val Leu Tyr Ser
20 25 30

Ala Asn His Lys Asn Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys
35 40 45

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

Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Phe Thr
65 70 75 80

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

Tyr Leu Ser Ser Trp Thr Phe Gly Gly Gly Thr Lys Val Gln Ile Lys
100 105 110

Arg

<210> 125
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human CD22 Antibody (Epratuzumab) Heavy Chain
Variable Domain

<400> 125

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

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

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

Gly Tyr Ile Asn Pro Arg Asn Asp Tyr Thr Glu Tyr Asn Gln Asn Phe
50 55 60

Lys Asp Lys Ala Thr Ile Thr Ala Asp Glu Ser Thr Asn Thr Ala Tyr
65 70 75 80

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

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

Thr Val Ser Ser
115

<210> 126
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> HumanizedAnti-Human CD32B Antibody ("CD32B mAb 1") Light Chain
Variable Domain

<400> 126

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

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

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

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

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

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

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

<210> 127
<211> 116
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human CD32B Antibody ("CD32B mAb 1") Heavy Chain
Variable Domain

<400> 127

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

Ser Met Lys Leu Ser Cys Glu Ala Ser Gly Phe Thr Phe Ser Asp Ala
20 25 30

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

Ala Glu Ile Arg Asn Lys Ala Lys Asn His Ala Thr Tyr Tyr Ala Glu
50 55 60

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

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

Tyr Cys Gly Ala Leu Gly Leu Asp Tyr Trp Gly Gln Gly Thr Thr Leu
100 105 110

Thr Val Ser Ser
115

<210> 128
<211> 109
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(109)
<223> Murine Anti-Human CD64 Antibody ("CD64 mAb 1") Light Chain

Variable Domain

<400> 128

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

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

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

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

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

Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys
100 105

<210> 129

<211> 118

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(118)

<223> Murine Anti-Human CD64 Antibody ("CD64 mAb 1") Heavy Chain
Variable Domain

<400> 129

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

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

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

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

Leu Val Thr Val Ser Ser
 115

<210> 130
 <211> 112
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human CD79 Antibody ("CD79 mAb 1") Light Chain
 Variable Domain

<400> 130

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

Gln Pro Ala Ser Ile Ser Cys Lys Ser Ser Gln Ser Leu Leu Asp Thr
 20 25 30

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

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

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

Ser Arg Val Glu Ala Glu Asp Leu Gly Ile Tyr Tyr Cys Trp Gln Gly
 85 90 95

Thr His Phe Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu Glu Leu Lys
 100 105 110

<210> 131
 <211> 113
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human CD79 Antibody ("CD79 mAb 1") Heavy Chain
 Variable Domain

<400> 131

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

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

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

Gly Met Val Asp Pro Ser Asp Ser Glu Thr His Tyr Asn Gln Met Phe
50 55 60

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

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

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

Ser

<210> 132
<211> 106
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(106)
<223> Murine Anti-Human TCR Antibody (BMA 031) Light Chain Variable
Domain

<400> 132

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

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

His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr
35 40 45

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

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

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

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

<210> 133
<211> 120
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE

<222> (1)..(120)
<223> Murine Anti-Human TCR Antibody (BMA 031) Heavy Chain Variable Domain

<400> 133

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

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

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

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

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 134
<211> 108
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(108)
<223> Murine Anti-Human NKG2D Antibody (KYK-1.0) Light Chain Variable Domain

<400> 134

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

Thr Ala Arg Ile Pro Cys Gly Gly Asp Asp Ile Glu Thr Lys Ser Val
20 25 30

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

Asp Asp Asp Asp Arg Pro Ser Gly Ile Pro Glu Arg Phe Phe Gly Ser
50 55 60

Asn Ser Gly Asn Thr Ala Thr Leu Ser Ile Ser Arg Val Glu Ala Gly
65 70 75 80

Asp Glu Ala Asp Tyr Tyr Cys Gln Val Trp Asp Asp Asn Asn Asp Glu
85 90 95

Trp Val Phe Gly Gly Gly Thr Gln Leu Thr Val Leu
100 105

<210> 135
<211> 118
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(118)
<223> Murine Anti-Human NKG2D Antibody (KYK-1.0) Heavy Chain Variable Domain

<400> 135

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

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

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

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

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

Leu Val Thr Val Ser Ser
115

<210> 136
<211> 110
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(110)
<223> Murine Anti-Human NKG2D Antibody (KYK-2.0) Light Chain Variable Domain

<400> 136

Gln Ser Ala Leu Thr Gln Pro Ala Ser Val Ser Gly Ser Pro Gly Gln
Page 56

1 5 10 15
 Ser Ile Thr Ile Ser Cys Ser Gly Ser Ser Ser Asn Ile Gly Asn Asn
 20 25 30
 Ala Val Asn Trp Tyr Gln Gln Leu Pro Gly Lys Ala Pro Lys Leu Leu
 35 40 45
 Ile Tyr Tyr Asp Asp Leu Leu Pro Ser Gly Val Ser Asp Arg Phe Ser
 50 55 60
 Gly Ser Lys Ser Gly Thr Ser Ala Phe Leu Ala Ile Ser Gly Leu Gln
 65 70 75 80
 Ser Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Ala Trp Asp Asp Ser Leu
 85 90 95
 Asn Gly Pro Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu
 100 105 110

<210> 137
 <211> 121
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(121)
 <223> Murine Anti-Human NKG2D Antibody (KYK-2.0) Heavy Chain Variable
 Domain

 <400> 137

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Phe Ile Arg Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp 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 Lys Asp Arg Gly Leu Gly Asp Gly Thr Tyr Phe Asp Tyr Trp Gly
 100 105 110
 Gln Gly Thr Thr Val Thr Val Ser Ser

115

120

<210> 138
 <211> 112
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(112)
 <223> Murine Anti-Fluorescein Antibody 4-4-20 Light Chain Variable Domain

<400> 138

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

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

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

Pro Lys Val Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

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

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

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

<210> 139
 <211> 118
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(118)
 <223> Murine Anti-Fluorescein Antibody 4-4-20 Heavy Chain Variable Domain

<400> 139

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

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

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

Ala Gln Ile Arg Asn Lys Pro Tyr Asn Tyr Glu Thr Tyr Tyr Ser Asp
50 55 60

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

Val Tyr Leu Gln Met Asn Asn Leu Arg Val Glu Asp Met Gly Ile Tyr
85 90 95

Tyr Cys Thr Gly Ser Tyr Tyr Gly Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Ser Val Thr Val Ser Ser
115

<210> 140

<211> 277

<212> PRT

<213> Artificial Sequence

<220>

<223> First Polypeptide Chain of "DR5 mAb 1 x CD3 mAb 2 Diabody"

<400> 140

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

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

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

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

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

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

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

Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly
115 120 125

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

Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
145 150 155 160

Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
 165 170 175
 Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
 180 185 190
 Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
 195 200 205
 Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly
 210 215 220
 Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
 225 230 235 240
 Thr Val Ser Ser Ala Ser Thr Lys Gly Glu Val Ala Ala Cys Glu Lys
 245 250 255
 Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val
 260 265 270
 Ala Ala Leu Glu Lys
 275

<210> 141
 <211> 831
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding First Polypeptide Chain of "DR5 mAb 1 x
 CD3 mAb 2 Diabody"

<400> 141
 gacattgtgc tgacacagtc tcctgcttcc ttagctgtat ctctcgggca gagggccacc 60
 atctcatgca gggccagcaa aagtgtcagt tcctctggct atagttatat gcaactgtac 120
 caacagaaac caggacagcc acccaaagtc ctcatctttc tttcatccaa cctagattct 180
 ggggtccctg ccagggttcag tggcagtgagg tctgggacag acttcaccct caacatccat 240
 cctgtggagg atgggggatgc tgcaacctat tactgtcagc acagtaggga tcttcctccg 300
 acgttcggtg gaggcaccaa gctggaaatc aaaggaggcg gatccggcgg cggaggcgag 360
 gtgcagctgg tggagtctgg gggaggcttg gtccagcctg gagggtcctt gagactctcc 420
 tgtgcagcct ctggattcac cttcagcaca tacgctatga attgggtccg ccaggctcca 480
 gggaaggggc tggagtgggt tggaaggatc aggtccaagt acaacaatta tgcaacctac 540
 tatgccgact ctgtgaaggg tagattcacc atctcaagag atgattcaaa gaactcactg 600
 tatctgcaaa tgaacagcct gaaaaccgag gacacggccg tgtattactg tgtgagacac 660
 ggtaacttcg gcaattctta cgtgtcttgg tttgcttatt ggggacaggg gacactgggtg 720
 actgtgtctt ccgcctccac caagggcgaa gtggccgcat gtgagaaaga gggttgctgct 780

ttggagaagg aggtcgctgc acttgaaaag gaggtcgag ccctggagaa a

831

<210> 142
 <211> 272
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "DR5 mAb 1 x CD3 mAb 2 Diabody"

<400> 142

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95

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

Gly Ser Gly Gly Gly Gly Glu Val Lys Phe Leu Glu Ser Gly Gly Gly
 115 120 125

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

Phe Asp Phe Ser Arg Tyr Trp Met Ser Trp Val Arg Gln Ala Pro Gly
 145 150 155 160

Lys Gly Leu Glu Trp Ile Gly Glu Ile Asn Pro Asp Ser Asn Thr Ile
 165 170 175

Asn Tyr Thr Pro Ser Leu Lys Asp Lys Phe Ile Ile Ser Arg Asp Asn
 180 185 190

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

Thr Ala Leu Tyr Tyr Cys Thr Arg Arg Ala Tyr Tyr Gly Asn Pro Ala
 210 215 220

Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ala Ala
225 230 235 240

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

Lys Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 143
<211> 816
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Second Polypeptide Chain of "DR5 mAb 1 x CD3 mAb 2 Diabody"

<400> 143
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
aagccaggac aggaccaag gggcctgatc ggggggtacaa acaaaagggc tccctggacc 180
cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
gggggtggca caaaactgac tgtgctggga ggtggtggat ccggcggcgg aggcgaggtg 360
aagtttctcg agtctggagg tggcctggtg cagcctggag gatccctgaa actctcctgt 420
gtagcctcag gattcgattt tagtagatac tggatgagtt ggggtccggca ggctccaggg 480
aaagggctag aatggattgg agaaattaat ccagatagca atacgataaa ctatacgcca 540
tctctaaagg ataaattcat catctccaga gacaacgcca aaaatacgct gtatctgcaa 600
atgaccaaag tgagatctga ggacacagcc ctttattatt gtacaagaag ggcctactat 660
ggtaacccgg cctggtttgc ttactggggc caagggactc tggtcactgt ctctgcagcc 720
tccaccaagg gcaaagtggc cgcagtgaag gagaaagttg ctgctttgaa agagaaggtc 780
gccgcactta aggaaaaggt cgcagccctg aaagag 816

<210> 144
<211> 273
<212> PRT
<213> Artificial Sequence

<220>
<223> First Polypeptide Chain of "DR5 mAb 2 x CD3 mAb 2 Diabody"

<400> 144

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

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

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

Lys

<210> 145
 <211> 819
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding First Polypeptide Chain of "DR5 mAb 2 x CD3 mAb 2 Diabody"

<400> 145
 gacattgtga tgaccagtc tcacaaattc atgtccactt cagtaggaga cagggtcagc 60
 atcacctgca aggccagtca ggatgtgaat actgctgtag cctggtatca acaaaaacca 120
 gggcaatctc ctaaactact gatttactgg gcatccaccc ggcacactgg agtccttgat 180
 cgcttcacag gcagtggatc tgggacagat tatacactca ccatcaaaag tgtgcaggct 240
 gaagacctga cactttatta ctgtcagcaa cactatatca ctccgtggac gttcgggtgga 300
 ggcaccaagc tggaaatcaa aggaggcgga tccggcgggc gaggcgaggt gcagctggtg 360
 gagtctgggg gaggcttggt ccagcctgga gggctcctga gactctcctg tgcagcctct 420
 ggattcacct tcagcacata cgctatgaat tgggtccgcc aggctccagg gaaggggctg 480
 gagtggggtg gaaggatcag gtccaagtac aacaattatg caacctacta tgccgactct 540
 gtgaagggtg gattcaccat ctcaagagat gattcaaaga actcactgta tctgcaaagt 600
 aacagcctga aaaccgagga cacggccgtg tattactgtg tgagacacgg taacttcggc 660
 aattcttacg tgtcttggtt tgcttattgg ggacagggga cactggtgac tgtgtcttcc 720
 gcctccacca agggcgaagt ggccgcatgt gagaaagagg ttgctgcttt ggagaaggag 780
 gtcgctgcac ttgaaaagga ggtcgcagcc ctggagaaa 819

<210> 146
 <211> 270
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "DR5 mAb 2 x CD3 mAb 2 Diabody"

<400> 146
 Gln Ala Val Val Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly
 1 5 10 15
 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30
 Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45
 Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95
 Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Gly

100	105	110
Gly Ser Gly Gly Gly Gly Lys Val Gln Leu Gln Gln Ser Gly Ala Glu		
115	120	125
Leu Val Lys Pro Gly Ala Ser Val Lys Leu Ser Cys Lys Ala Ser Gly		
130	135	140
Tyr Thr Phe Thr Glu Tyr Ile Leu His Trp Val Lys Gln Lys Ser Gly		
145	150	155
Gln Gly Leu Glu Trp Ile Gly Trp Phe Tyr Pro Gly Asn Asn Asn Ile		
165	170	175
Lys Tyr Asn Glu Lys Phe Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys		
180	185	190
Ser Ser Ser Thr Val Tyr Met Glu Leu Ser Arg Leu Thr Ser Glu Asp		
195	200	205
Ser Ala Val Tyr Phe Cys Ala Arg His Glu Gln Gly Pro Gly Tyr Phe		
210	215	220
Asp Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Ala Ser Thr		
225	230	235
Lys Gly Lys Val Ala Ala Cys Lys Glu Lys Val Ala Ala Leu Lys Glu		
245	250	255
Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu		
260	265	270

<210> 147
 <211> 810
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Second Polypeptide Chain of "DR5 mAb 2 x CD3 mAb 2 Diabody"

<400> 147	
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg	60
acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag	120
aagccaggac aggcaccaag gggcctgatc ggggggtacaa acaaaagggc tccctggacc	180
cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca	240
caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc	300
gggggtggca caaaactgac tgtgctggga ggggggtggat ccggcggcgg aggcaaggtc	360
cagctgcagc agtctggagc tgaactggtg aaacccgggg catcagtga gctgtcctgc	420
aaggcttctg ggtacacctt cactgagtat attttacact gggtaaagca gaagtctgga	480

cagggctcttg agtggattgg gtggttttat cctggaaata ataataaaa gtacaatgag 540
aaattcaagg acaaggccac actgactgcg gacaaatcct ccagcacagt ctatatggaa 600
cttagtagat tgacatctga agactctgcg gtctatttct gtgcaagaca cgaacaagga 660
ccaggttact ttgactactg gggccaaggc accactctca cagtctcctc cgcctccacc 720
aagggcaaag tggccgcatg taaggagaaa gttgctgctt tgaaagagaa ggtcgccgca 780
cttaaggaaa aggtcgcagc cctgaaagag 810

<210> 148
<211> 274
<212> PRT
<213> Artificial Sequence

<220>
<223> First Polypeptide Chain of "DR5 mAb 3 x CD3 mAb 2 Diabody"
<400> 148

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

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

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

Ala Asn Asn Arg Pro Ser Gly Ile Pro Asp Arg Phe Ser Gly Ser Ser
50 55 60

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

Glu Ala Asp Tyr Tyr Cys Asn Ser Ala Asp Ser Ser Gly Asn His Val
85 90 95

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

Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
115 120 125

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

Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly
145 150 155 160

Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr
165 170 175

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

Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr
210 215 220

Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
225 230 235 240

Ser Ala Ser Thr Lys Gly Glu Val Ala Ala Cys Glu Lys Glu Val Ala
245 250 255

Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu
260 265 270

Glu Lys

<210> 149

<211> 272

<212> PRT

<213> Artificial Sequence

<220>

<223> Second Polypeptide Chain of "DR5 mAb 3 x CD3 mAb 2 Diabody"

<400> 149

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
85 90 95

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

Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Gln Ser Gly Gly Gly
115 120 125

Val Glu Arg Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly

130 135 140
 Phe Thr Phe Asp Asp Tyr Ala Met Ser Trp Val Arg Gln Ala Pro Gly
 145 150 155 160
 Lys Gly Leu Glu Trp Val Ser Gly Ile Asn Trp Gln Gly Gly Ser Thr
 165 170 175
 Gly Tyr Ala Asp Ser Val Lys Gly Arg Val 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 Lys Ile Leu Gly Ala Gly Arg Gly Trp
 210 215 220
 Tyr Phe Asp Tyr Trp Gly Lys Gly Thr Thr Val Thr Val Ser Ser Ala
 225 230 235 240
 Ser Thr Lys Gly Lys Val Ala Ala Cys Lys Glu Lys Val Ala Ala Leu
 245 250 255
 Lys Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
 260 265 270

 <210> 150
 <211> 274
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> First Polypeptide Chain of "DR5 mAb 4 x CD3 mAb 2 Diabody"

 <400> 150
 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 Gly Ile Ser Arg Ser
 20 25 30
 Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Ser 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 Phe Gly Ser Ser Pro
 85 90 95

Trp Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Gly Gly Gly Ser
100 105 110

Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val
115 120 125

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

Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly
145 150 155 160

Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr
165 170 175

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

Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr
210 215 220

Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
225 230 235 240

Ser Ala Ser Thr Lys Gly Glu Val Ala Ala Cys Glu Lys Glu Val Ala
245 250 255

Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu
260 265 270

Glu Lys

<210> 151
<211> 273
<212> PRT
<213> Artificial Sequence

<220>
<223> Second Polypeptide Chain of "DR5 mAb 4 x CD3 mAb 2 Diabody"
<400> 151

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95
 Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Gly
 100 105 110
 Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Gln Glu Ser Gly Pro Gly
 115 120 125
 Leu Val Lys Pro Ser Gln Thr Leu Ser Leu Thr Cys Thr Val Ser Gly
 130 135 140
 Gly Ser Ile Ser Ser Gly Asp Tyr Phe Trp Ser Trp Ile Arg Gln Leu
 145 150 155 160
 Pro Gly Lys Gly Leu Glu Trp Ile Gly His Ile His Asn Ser Gly Thr
 165 170 175
 Thr Tyr Tyr Asn Pro Ser Leu Lys Ser Arg Val Thr Ile Ser Val Asp
 180 185 190
 Thr Ser Lys Lys Gln Phe Ser Leu Arg Leu Ser Ser Val Thr Ala Ala
 195 200 205
 Asp Thr Ala Val Tyr Tyr Cys Ala Arg Asp Arg Gly Gly Asp Tyr Tyr
 210 215 220
 Tyr Gly Met Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser
 225 230 235 240
 Ala Ser Thr Lys Gly Lys Val Ala Ala Cys Lys Glu Lys Val Ala Ala
 245 250 255
 Leu Lys Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys
 260 265 270

Glu

<210> 152
 <211> 5
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Linker

<400> 152

Ala Pro Ser Ser Ser
1 5

<210> 153

<211> 106

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(106)

<223> Murine Anti-Human EphA2 Antibody EphA2 mAb 1") Light Chain
Variable Domain

<400> 153

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

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

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

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

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

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

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

<210> 154

<211> 11

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(11)

<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Light Chain
Variable Domain CDRL1

<400> 154

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

<210> 155

<211> 7

<212> PRT

<213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(7)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Light Chain
 Variable Domain CDRL2

<400> 155

Tyr Thr Ser Arg Leu His Ser
 1 5

<210> 156
 <211> 8
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(8)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Light Chain
 Variable Domain CDRL3

<400> 156

Gln Gln Gly Tyr Thr Leu Tyr Thr
 1 5

<210> 157
 <211> 318
 <212> DNA
 <213> Mus musculus

<220>
 <221> misc_feature
 <222> (1)..(318)
 <223> Polynucleotide Encoding Murine Anti-Human EphA2 Antibody ("EphA2
 mAb 1") Light Chain Variable Domain CDRL1

<400> 157
 gatatccaga tgacacagac tacatcctcc ctgtctgcct ctctgggaga cagaatcacc 60
 atcagttgca gggcaagtca ggacattagc aattatttaa actggtatca gcagaaacca 120
 gatggaactg ttaaactcct gatctactac acatcaagat tacactcagg agtcccatca 180
 aggttcagtg gcagtgggtc tggaacagat tattctctca ccattagcaa cctggagcaa 240
 gaagatattg ccacttactt ttgccaacag ggttatacgc tgtacacgtt cggagggggg 300
 accaagctgg aaataaaa 318

<210> 158
 <211> 118
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(118)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Heavy Chain
 Variable Domain

<400> 158

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

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

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

Gly Met Ile Trp Gly Gly Gly Ser Thr Asp Tyr Asn Ser Ala Leu Lys
50 55 60

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

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

Arg Lys His Gly Asn Tyr Tyr Thr Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Ser Val Thr Val Ser Ser
115

<210> 159
<211> 10
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(10)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Heavy Chain
Variable Domain CDRH1

<400> 159

Gly Phe Ser Leu Ser Arg Tyr Ser Val His
1 5 10

<210> 160
<211> 16
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(16)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Heavy Chain
Variable Domain CDRH2

<400> 160

Met Ile Trp Gly Gly Gly Ser Thr Asp Tyr Asn Ser Ala Leu Lys Ser
1 5 10 15

<210> 161
<211> 10
<212> PRT
<213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(10)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Heavy Chain Variable Domain CDRH3

<400> 161

Lys His Gly Asn Tyr Tyr Thr Met Asp Tyr
 1 5 10

<210> 162
 <211> 354
 <212> DNA
 <213> Mus musculus

<220>
 <221> misc_feature
 <222> (1)..(354)
 <223> Polynucleotide Encoding Murine Anti-Human EphA2 Antibody ("EphA2 mAb 1") Heavy Chain Variable Domain

<400> 162
 cagggtgcagc tgaaggagtc aggacctggc ctggtggcac cctcacagag cctgtccatc 60
 acatgcactg tctctgggtt ctctattatcc agatatagtg tacactgggt tcgccagcct 120
 ccaggaaagg gtctggagtg gctgggaatg atatgggggtg gtggaagcac agactataat 180
 tcagctctca aatccagact gagtatcagc aaggacaact ccaagagcca agttttctta 240
 aaaatgaaca gtctgcaaac tgatgacaca gccatgtact actgtgccag aaaacatggt 300
 aactactata ctatggacta ctgggggtcaa ggaacctcag tcaccgtctc ctcc 354

<210> 163
 <211> 111
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(111)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Light Chain Variable Domain

<400> 163

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

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

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

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

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

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

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

<210> 164
<211> 16
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(16)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Light Chain
Variable Domain CDRL1

<400> 164

Arg Ser Ser Gln Ser Leu Val His Ser Ser Gly Asn Thr Tyr Leu His
1 5 10 15

<210> 165
<211> 7
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(7)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Light Chain
Variable Domain CDRL2

<400> 165

Lys Val Ser Asn Arg Phe Ser
1 5

<210> 166
<211> 8
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(8)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Light Chain
Variable Domain CDRL3

<400> 166

Ser Gln Ser Thr His Val Pro Thr
1 5

<210> 167
<211> 118
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(118)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Heavy Chain

Variable Domain

<400> 167

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

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

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

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

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

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

Ala Arg Glu Leu Gly Pro Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Leu Thr Val Ser Ser
115

<210> 168

<211> 10

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(10)

<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Heavy Chain Variable Domain CDRH1

<400> 168

Gly Phe Thr Phe Thr Asn Tyr Gly Met Asn
1 5 10

<210> 169

<211> 17

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(17)

<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Heavy Chain Variable Domain CDRH2

<400> 169

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

Gly

<210> 170
<211> 9
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(9)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 2") Heavy Chain
Variable Domain CDRH3

<400> 170

Glu Leu Gly Pro Tyr Tyr Phe Asp Tyr
1 5

<210> 171
<211> 354
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<222> (1)..(354)
<223> Polynucleotide Encoding Murine Anti-Human EphA2 Antibody ("EphA2
mAb 2") Heavy Chain Variable Domain

<400> 171
cagatccagt tggatgcagtc tggacctgag ctgaagaagc ctggagagac agtcaagatc 60
tcctgcaagg cttctgggtt taccttcaca aactatggaa tgaactgggt gaagcaggct 120
ccaggaaagg gtttaaagtg gatgggctgg ataaacacct atattggaga gccgacatat 180
gctgatgact tcaagggacg gtttgtcttc tctttggaaa cctctgccag cactgcctat 240
ttgcagatca acaacctcaa aaatgaggac atggccacat atttctgtgc aagagaactg 300
ggaccatact actttgacta ctggggccaa ggcaccactc tcacagtctc ctcc 354

<210> 172
<211> 107
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(107)
<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Light Chain
Variable Domain

<400> 172
Asp Ile Val Leu Thr Gln Ser His Arg Ser Met Ser Thr Ser Val Gly
1 5 10 15

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

Val Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ser Pro Lys Leu Leu Ile
Page 77

35

40

45

Phe Trp Ala Ser Thr Arg His Ala Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

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

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

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

<210> 173

<211> 11

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(11)

<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Light Chain Variable Domain CDRL1

<400> 173

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

<210> 174

<211> 7

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(7)

<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Light Chain Variable Domain CDRL2

<400> 174

Trp Ala Ser Thr Arg His Ala
 1 5

<210> 175

<211> 9

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(9)

<223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Light Chain Variable Domain CDRL3

<400> 175

Gln Gln His Tyr Ser Thr Pro Tyr Thr
 1 5

<210> 176
 <211> 321
 <212> DNA
 <213> Mus musculus

 <220>
 <221> misc_feature
 <222> (1)..(321)
 <223> Polynucleotide Encoding Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Light Chain Variable Domain

 <400> 176
 gacattgtgc tgaccagtc tcacagatcc atgtccacat cagtaggaga caggggtcaac 60
 atcacctgca aggccagtca ggatgtgact actgctgtag cctgggtatca acaaaaacca 120
 gggcaatctc ctaaattact gattttctgg gcatccaccc ggcacgctgg agtccttgat 180
 cgcttcacag gcagtggatc tgggacagat ttactctca ccatcagcag tgtgcaggct 240
 ggagacctgg cactttatta ctgtcaacaa cattatagca caccgtacac attcggaggg 300
 gggaccaagc tggaataaa a 321

<210> 177
 <211> 118
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(118)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Heavy Chain Variable Domain

<400> 177
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Ser Val Lys Pro Gly Gly
 1 5 10 15
 Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr Asp His
 20 25 30
 Tyr Met Tyr Trp Val Arg Gln Thr Pro Glu Lys Arg Leu Glu Trp Val
 35 40 45
 Ala Thr Ile Ser Asp Gly Gly Ser Phe Thr Ser Tyr Pro Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Ile Ala Lys Asn Asn Leu Tyr
 65 70 75 80
 Leu Gln Met Ser Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys
 85 90 95
 Thr Arg Asp Glu Ser Asp Arg Pro Phe Pro Tyr Trp Gly Gln Gly Thr
 100 105 110
 Leu Val Thr Val Ser Ser
 115

<210> 178
 <211> 10
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(10)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Heavy Chain
 Variable Domain CDRH1

<400> 178
 Gly Phe Thr Phe Thr Asp His Tyr Met Tyr
 1 5 10

<210> 179
 <211> 17
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(17)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Heavy Chain
 Variable Domain CDRH2

<400> 179
 Thr Ile Ser Asp Gly Gly Ser Phe Thr Ser Tyr Pro Asp Ser Val Lys
 1 5 10 15

Gly

<210> 180
 <211> 9
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(9)
 <223> Murine Anti-Human EphA2 Antibody ("EphA2 mAb 3") Heavy Chain
 Variable Domain CDRH3

<400> 180
 Asp Glu Ser Asp Arg Pro Phe Pro Tyr
 1 5

<210> 181
 <211> 106
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human gpA33 Antibody ("gpA33 mAb 1") Light Chain
 Variable Domain

<400> 181
 Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly

Protein Sequence																	
1					5					10					15		
Asp	Arg	Val	Thr	Ile	Thr	Cys	Ser	Ala	Arg	Ser	Ser	Ile	Ser	Phe	Met		
			20							25				30			
Tyr	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu	Leu	Ile	Tyr		
			35				40				45						
Asp	Thr	Ser	Asn	Leu	Ala	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly	Ser		
		50				55				60							
Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Glu	Ala	Glu		
65				70				75							80		
Asp	Ala	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Trp	Ser	Ser	Tyr	Pro	Leu	Thr		
			85							90				95			
Phe	Gly	Gln	Gly	Thr	Lys	Leu	Glu	Ile	Lys								
			100				105										

1

5

<210> 185
 <211> 318
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Humanized Anti-Human gpA33 Antibody ("gpA33 mAb 1") Light Chain Variable Domain

<400> 185
 gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
 attacttgct ctgctaggct ctcaatcagc ttcattgtact ggtatcagca gaagcccggc 120
 aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccggggg gccatctcgg 180
 ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
 gatgccgcta cctactattg ccagcagtg agcagctatc ctctgacctt cggacagggg 300
 actaaactgg aaatcaag 318

<210> 186
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human gpA33 Antibody ("gpA33 mAb 1") Heavy Chain Variable Domain

<400> 186
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Ser
 20 25 30
 Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Asn Tyr Asn Gly Lys Phe
 50 55 60
 Lys Asp Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe Asp Val Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser
 115

<210> 187
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human gpA33 Antibody ("gpA33 mAb 1") Heavy Chain Variable Domain CDRH1

<400> 187

Gly Tyr Thr Phe Thr Gly Ser Trp Met Asn
 1 5 10

<210> 188
 <211> 17
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human gpA33 Antibody ("gpA33 mAb 1") Heavy Chain Variable Domain CDRH2

<400> 188

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

Asp

<210> 189
 <211> 10
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Humanized Anti-Human gpA33 Antibody ("gpA33 mAb 1") Heavy Chain Variable Domain CDRH3

<400> 189

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

<210> 190
 <211> 357
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Humanized Anti-Human gpA33 Antibody ("gpA33 mAb 1") Heavy Chain Variable Domain

<400> 190
 caggtccagc tgggtccagag cggggccgaa gtcaaaaaac ccggagcaag cgtgaaggct 60
 tcctgcaaag catcaggcta tacatttaca ggcagctgga tgaactgggt gaggcaggct 120
 ccaggacagg gactggagt gatcgggctg atctaccctg gagacggcga aactaactat 180
 aatggaaagt tcaaagaccg agtgaccatc acagccgata agtctactag taccgcctac 240
 atggagctga gtcctctgcg gtctgaagat accgccgtct actattgctg tagaatttac 300

ggaaacaatg tctattttga cgtgtggggg cagggaacaa ctgtgactgt ctcctcc

357

<210> 191
<211> 109
<212> PRT
<213> Artificial Sequence

<220>
<223> Chimeric Anti-Human Her2 Antibody ("Her2 mAb 1") Light Chain
Variable Domain

<400> 191

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

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

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

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

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

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

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

<210> 192
<211> 120
<212> PRT
<213> Artificial Sequence

<220>
<223> Chimeric Anti-Human Her2 Antibody ("Her2 mAb 1") Heavy Chain
Variable Domain

<400> 192

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

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

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

Gly Arg Ile Tyr Pro Thr Asn Gly Tyr Thr Arg Tyr Asp Pro Lys Phe
50 55 60

Gln Asp Lys Ala Thr Ile Thr Ala Asp Thr Ser Ser Asn Thr Ala Tyr
65 70 75 80

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

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

Gly Ala Ser Val Thr Val Ser Ser
115 120

<210> 193

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human Her2 Antibody (Trastuzumab) Light Chain
Variable Domain

<400> 193

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

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

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

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

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

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

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

<210> 194

<211> 120

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human Her2 Antibody (Trastuzumab) Heavy Chain
Variable Domain

<400> 194

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

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

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

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

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

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

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

Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 195

<211> 107

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(107)

<223> Murine Anti-Human B7-H3 Antibody ("B7-H3 mAb 1") Light Chain
Variable Domain

<400> 195

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

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

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

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

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

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

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

<210> 196
 <211> 122
 <212> PRT
 <213> Mus musculus

 <220>
 <221> MISC_FEATURE
 <222> (1)..(122)
 <223> Murine Anti-Human B7-H3 Antibody ("B7-H3 mAb 1") Heavy Chain
 Variable Domain

 <400> 196

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

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

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

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

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

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

Gly Arg Gly Arg Glu Asn Ile Tyr Tyr Gly Ser Arg Leu Asp Tyr Trp
 100 105 110

Gly Gln Gly Thr Thr Leu Thr Val Ser Ser
 115 120

<210> 197
 <211> 107
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(107)
 <223> Murine Anti-Human B7-H3 Antibody ("B7-H3 mAb 2") Light Chain
 Variable Domain

<400> 197

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

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

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

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

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

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

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

<210> 198

<211> 120

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE

<222> (1)..(120)

<223> Murine Anti-Human B7-H3 Antibody ("B7-H3 mAb 2") Heavy Chain
Variable Domain

<400> 198

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

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

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

Gly Thr Ile Tyr Pro Gly Asp Gly Asp Thr Arg Tyr Thr Gln Lys Phe
50 55 60

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

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

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

Gly Thr Thr Val Thr Val Ser Ser
115 120

<210> 199

<211> 108

<212> PRT

<213> Mus musculus

<220>

<221> MISC_FEATURE
 <222> (1)..(108)
 <223> Murine Anti-Human B7-H3 Antibody ("B7-H3 mAb 3") Light Chain
 Variable Domain

<400> 199

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

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

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

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

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

Glu Asp Phe Gly Arg Tyr Tyr Cys Gln His His Tyr Gly Thr Pro Pro
 85 90 95

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

<210> 200
 <211> 117
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(117)
 <223> Murine Anti-Human B7-H3 Antibody ("B7-H3 mAb 3") Heavy Chain
 Variable Domain

<400> 200

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

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

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

Ala Thr Ile Asn Ser Gly Gly Ser Asn Thr Tyr Tyr Pro Asp Ser Leu
 50 55 60

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

Leu Gln Met Arg Ser Leu Lys Ser Glu Asp Thr Ala Met Tyr Tyr Cys

85

90

95

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

Val Thr Val Ser Ser
 115

<210> 201
 <211> 108
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimeric Anti-Human EGFR Antibody (Cetuximab) Light Chain
 Variable Domain

<400> 201

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

Glu Arg Val Ser Phe Ser Cys Arg Ala Ser Gln Ser Ile Gly Thr Asn
 20 25 30

Ile His Trp Tyr Gln Gln Arg Thr Asn Gly Ser Pro Arg Leu Leu Ile
 35 40 45

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

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

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

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

<210> 202
 <211> 119
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Chimeric Anti-Human EGFR Antibody (Cetuximab) Heavy Chain
 Variable Domain

<400> 202

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

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

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

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

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

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

Arg Ala Leu Thr Tyr Tyr Asp Tyr Glu Phe Ala Tyr Trp Gly Gln Gly
100 105 110

Thr Leu Val Thr Val Ser Ala
115

<210> 203

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human VEGF Antibody (Bevacizumab) Light Chain
Variable Domain

<400> 203

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

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

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

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

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

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

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

<210> 204

<211> 123

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human VEGF Antibody (Bevacizumab) Heavy Chain Variable Domain

<400> 204

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

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

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

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

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

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

<210> 205

<211> 108

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-CD52 Antibody (Alemtuzumab) Light Chain Variable Domain

<400> 205

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

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

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

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

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

Glu Asp Ile Ala Thr Tyr Tyr Cys Leu Gln His Ile Ser Arg Pro Arg

85

90

95

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

<210> 206
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-CD52 Antibody (Alemtuzumab) Heavy Chain Variable Domain

<400> 206

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

Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Phe Thr Phe Thr Asp Phe
20 25 30

Tyr Met Asn Trp Val Arg Gln Pro Pro Gly Arg Gly Leu Glu Trp Ile
35 40 45

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

Ser Val Lys Gly Arg Val Thr Met Leu Val Asp Thr Ser Lys Asn Gln
65 70 75 80

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

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

Gln Gly Ser Leu Val Thr Val Ser Ser
115 120

<210> 207
<211> 98
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(98)
<223> Human IgG1 CH1 Domain

<400> 207

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

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

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

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

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

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

Lys Val

<210> 208
<211> 98
<212> PRT
<213> Artificial Sequence

<220>
<223> Variant Human IgG1 CH1 Domain

<400> 208

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

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

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

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

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

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

Arg Val

<210> 209
<211> 15
<212> PRT
<213> Homo sapiens

<220>
<221> MISC_FEATURE
<222> (1)..(15)
<223> Human IgG1 Hinge Domain

<400> 209

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

<210> 210

<211> 107

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(107)

<223> Human IgG1 CL Kappa Domain

<400> 210

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

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

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

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

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

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

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

<210> 211

<211> 104

<212> PRT

<213> Homo sapiens

<220>

<221> MISC_FEATURE

<222> (1)..(104)

<223> human IgG2 CL Lambda2 Domain

<400> 211

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

Glu Leu Gln Ala Asn Lys Ala Thr Leu Val Cys Leu Ile Ser Asp Phe
20 25 30

Tyr Pro Gly Ala Val Thr Val Ala Trp Lys Ala Asp Ser Ser Pro Val
35 40 45

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

Ala Ala Ser Ser Tyr Leu Ser Leu Thr Pro Glu Gln Trp Lys Ser His
65 70 75 80

Arg Ser Tyr Ser Cys Gln Val Thr His Glu Gly Ser Thr Val Glu Lys
85 90 95

Thr Val Ala Pro Thr Glu Cys Ser
100

<210> 212

<211> 503

<212> PRT

<213> Artificial Sequence

<220>

<223> First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
Tri-Specific Binding Molecule

<400> 212

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

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
20 25 30

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

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Ser Gly Gly
100 105 110

Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
115 120 125

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
130 135 140

Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
145 150 155 160

Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr
Page 96

				165				170				175			
Ala	Asp	Ser	Val 180	Lys	Gly	Arg	Phe	Thr 185	Ile	Ser	Arg	Asp	Asp 190	Ser	Lys
Asn	Ser	Leu 195	Tyr	Leu	Gln	Met	Asn 200	Ser	Leu	Lys	Thr	Glu 205	Asp	Thr	Ala
Val	Tyr 210	Tyr	Cys	Val	Arg	His 215	Gly	Asn	Phe	Gly	Asn 220	Ser	Tyr	Val	Ser
Trp 225	Phe	Ala	Tyr	Trp	Gly 230	Gln	Gly	Thr	Leu	Val 235	Thr	Val	Ser	Ser	Gly 240
Gly	Cys	Gly	Gly	Gly 245	Glu	Val	Ala	Ala	Leu 250	Glu	Lys	Glu	Val	Ala 255	Ala
Leu	Glu	Lys	Glu 260	Val	Ala	Ala	Leu	Glu 265	Lys	Glu	Val	Ala	Ala 270	Leu	Glu
Lys	Gly	Gly 275	Gly	Asp	Lys	Thr	His 280	Thr	Cys	Pro	Pro	Cys 285	Pro	Ala	Pro
Glu	Ala 290	Ala	Gly	Gly	Pro	Ser 295	Val	Phe	Leu	Phe	Pro 300	Pro	Lys	Pro	Lys
Asp 305	Thr	Leu	Met	Ile	Ser 310	Arg	Thr	Pro	Glu	Val 315	Thr	Cys	Val	Val	Val 320
Asp	Val	Ser	His	Glu 325	Asp	Pro	Glu	Val	Lys 330	Phe	Asn	Trp	Tyr	Val 335	Asp
Gly	Val	Glu	Val 340	His	Asn	Ala	Lys	Thr 345	Lys	Pro	Arg	Glu	Glu 350	Gln	Tyr
Asn	Ser	Thr 355	Tyr	Arg	Val	Val	Ser 360	Val	Leu	Thr	Val	Leu 365	His	Gln	Asp
Trp	Leu 370	Asn	Gly	Lys	Glu	Tyr 375	Lys	Cys	Lys	Val	Ser 380	Asn	Lys	Ala	Leu
Pro 385	Ala	Pro	Ile	Glu	Lys 390	Thr	Ile	Ser	Lys	Ala 395	Lys	Gly	Gln	Pro	Arg 400
Glu	Pro	Gln	Val	Tyr 405	Thr	Leu	Pro	Pro	Ser 410	Arg	Glu	Glu	Met	Thr 415	Lys
Asn	Gln	Val	Ser 420	Leu	Trp	Cys	Leu	Val 425	Lys	Gly	Phe	Tyr	Pro 430	Ser	Asp
Ile	Ala 435	Val	Glu	Trp	Glu	Ser	Asn 440	Gly	Gln	Pro	Glu	Asn 445	Asn	Tyr	Lys

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 450 455 460

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 465 470 475 480

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 485 490 495

Leu Ser Leu Ser Pro Gly Lys
 500

<210> 213
 <211> 1509
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 213
 gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
 attacttgct ctgctaggtc ctcaatcagc ttcattgtact ggtatcagca gaagcccggc 120
 aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccggggg gccatctcgg 180
 ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
 gatgccgcta cctactattg ccagcagtg agcagctatc ctctgacctt cggacagggg 300
 actaaactgg aaatcaaggg tggaggatcc ggcggcggag gcgagggtgca gctggtggag 360
 tctggggggag gcttgggtcca gcctggaggg tccctgagac tctcctgtgc agcctctgga 420
 ttcaccttca gcacatacgc tatgaattgg gtccgccagg ctccagggaa ggggctggag 480
 tgggttggaa ggatcaggtc caagtacaac aattatgcaa cctactatgc cgactctgtg 540
 aagggtagat tcaccatctc aagagatgat tcaaagaact cactgtatct gcaaatgaac 600
 agcctgaaaa ccgaggacac ggccgtgtat tactgtgtga gacacggtaa cttcggcaat 660
 tcttacgtgt cttggtttgc ttattgggga caggggacac tgggtgactgt gtcttccgga 720
 ggatgtggcg gtggagaagt ggccgactg gagaaagagg ttgctgcttt ggagaaggag 780
 gtcgctgcac ttgaaaagga ggtcgcagcc ctggagaaag gcggcgggga caaaactcac 840
 acatgcccac cgtgcccagc acctgaagcc gcgggggggac cgtcagtctt cctcttcccc 900
 ccaaaacca aggacacct catgatctcc cggaccctg aggtcacatg cgtggtggtg 960
 gacgtgagcc acgaagacc tgaggtcaag ttcaactggt acgtggacgg cgtggagggtg 1020
 cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 1080
 gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggtctcc 1140
 aacaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 1200
 gaaccacagg tgtacacct gcccccatcc cgggaggaga tgaccaagaa ccaggtcagc 1260

ctgtggtgcc tgggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat 1320
 gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggctccttc 1380
 ttctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 1440
 tgctccgtga tgcattgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct 1500
 ccgggtaaa 1509

<210> 214
 <211> 271
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 214

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95

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

Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
 115 120 125

Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly
 130 135 140

Tyr Thr Phe Thr Gly Ser Trp Met Asn Trp Val Arg Gln Ala Pro Gly
 145 150 155 160

Gln Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr
 165 170 175

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

Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe
210 215 220

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Cys
225 230 235 240

Gly Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys
245 250 255

Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 215
<211> 813
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Second Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 215
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
aagccaggac aggcaccaag gggcctgatc ggggggtacaa aaaaaagggc tccctggacc 180
cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
caggccgagg acgaagccga ttactattgt gctctgtggg atagcaatct gtgggtgttc 300
gggggtggca caaaactgac tgtgctggga ggggggtggat ccggcggagg tggacaggtc 360
cagctggtcc agagcggggc cgaagtcaaa aaaccggag caagcgtgaa ggtctcctgc 420
aaagcatcag gctatacatt tacaggcagc tggatgaact ggggtaggca ggctccagga 480
cagggactgg agtggatcgg gcgcatctac cctggagacg gcgaaactaa ctataatgga 540
aagttcaaag accgagtgc catcacagcc gataagtcta ctagtaccgc ctacatggag 600
ctgagctccc tgcggtctga agataccgcc gtctactatt gcgctagaat ttacggaaac 660
aatgtctatt ttgacgtgtg ggggcaggga acaactgtga ctgtctcctc cggaggatgt 720
ggcgggtggaa aagtggccgc actgaaggag aaagttgctg ctttgaaaga gaaggtcgcc 780
gcacttaagg aaaaggtcgc agccctgaaa gag 813

<210> 216
<211> 451
<212> PRT
<213> Artificial Sequence

<220>
<223> Third Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
Tri-Specific Binding Molecule

<400> 216

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

Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
275 280 285

His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
290 295 300

Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
305 310 315 320

Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
325 330 335

Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
340 345 350

Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
355 360 365

Leu Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
370 375 380

Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
385 390 395 400

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

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 217
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "gpA33 mAb 1 x
CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 217
gaggtgaagt ttctcgagtc tggaggtggc ctggtgcagc ctggaggatc cctgaaactc 60
tcctgtgtag cctcaggatt cgatttttagt agatactgga tgagttgggt ccggcaggct 120
ccagggaaaag ggctagaatg gattggagaa attaatccag atagcaatac gataaactat 180
acgccatctc taaaggataa attcatcatc tccagagaca acgcaaaaaa tacgctgtat 240
ctgcaaatga ccaaagttag atctgaggac acagcccttt attattgtac aagaagggcc 300

tactatggta acccggcctg gtttgcttac tggggccaag ggactctggt cactgtctct	360
tccgcctcca ccaagggccc atcgggtcttc cccctggcac cctcctcaa gagcacctct	420
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg	480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc	540
tcaggactct actccctcag cagcgtggtg accgtgcctt ccagcagctt gggcacccag	600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gagagttgag	660
cccaaattctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga agccgcgggg	720
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccggacc	780
cctgagggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac	840
tggtagctgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac	900
aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc	960
aaggagtaca agtgcaaggt ctccaacaaa gccctccag ccccatcga gaaaaccatc	1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag	1080
gagatgacca agaaccaggt cagcctgagt tgcgcagtca aaggcttcta tcccagcgac	1140
atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc	1200
gtgctggact ccgacggctc cttcttcctc gtcagcaagc tcaccgtgga caagagcagg	1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggtcttgca caaccgtac	1320
acgcagaaga gcctctccct gtctccgggt aaa	1353

<210> 218
 <211> 218
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Fourth Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 218

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 219

<211> 654

<212> DNA

<213> Artificial Sequence

<220>

<223> Polynucleotide Encoding Fourth Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 219

gacattgtgc tgacacagtc tcctgcttcc ttagctgtat ctctcgggca gagggccacc	60
atctcatgca gggccagcaa aagtgtcagt tcctctggct atagttatat gacttggtac	120
caacagaaac caggacagcc acccaaagtc ctcatctttc tttcatccaa cctagattct	180
ggggtccctg ccagggttcag tggcagtggg tctgggacag acttcaccct caacatccat	240
cctgtggagg atggggatgc tgcaacctat tactgtcagc acagtaggga tcttcctccg	300
acgttcggtg gaggcaccaa gctggaaatc aaacgtacgg tggctgcacc atcggtcttc	360
atcttcccgc catctgatga gcagttgaaa tctggaactg cctctgttgt gtgcctgctg	420
aataacttct atcccagaga ggccaaagta cagtggaagg tggataacgc cctccaatcg	480
ggtaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta cagcctcagc	540
agcaccctga cgctgagcaa agcagactac gagaaacaca aagtctacgc ctgcgaagtc	600
acccatcagg gcctgagctc gcccgtcaca aagagcttca acaggggaga gtgt	654

<210> 220
<211> 503
<212> PRT
<213> Artificial Sequence

<220>
<223> First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 2"
Tri-Specific Binding Molecule

<400> 220

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

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
20 25 30

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

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Ser Gly Gly
100 105 110

Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
115 120 125

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
130 135 140

Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
145 150 155 160

Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr
165 170 175

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

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

Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser
210 215 220

Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
225 230 235 240

Gly Cys Gly Gly Gly Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala
 245 250 255
 Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu
 260 265 270
 Lys Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 275 280 285
 Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 290 295 300
 Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 305 310 315 320
 Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 325 330 335
 Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
 340 345 350
 Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 355 360 365
 Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
 370 375 380
 Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 385 390 395 400
 Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
 405 410 415
 Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
 420 425 430
 Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 435 440 445
 Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 450 455 460
 Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 465 470 475 480
 Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
 485 490 495
 Leu Ser Leu Ser Pro Gly Lys
 500

<210> 221
 <211> 1509
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 2" Tri-Specific Binding Molecule

<400> 221
 gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
 attacttgct ctgctaggtc ctcaatcagc ttcattgtact ggtatcagca gaagcccggc 120
 aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccggggg gccatctcgg 180
 ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
 gatgccgcta cctactattg ccagcagtgg agcagctatc ctctgacctt cggacagggg 300
 actaaactgg aaatcaaggg tggaggatcc ggcggcggag gcgagggtgca gctggtggag 360
 tctgggggag gcttggtcca gcctggaggg tccctgagac tctcctgtgc agcctctgga 420
 ttcaccttca gcacatacgc tatgaattgg gtccgccagg ctccaggga ggggctggag 480
 tgggttgga ggatcagggt caagtacaac aattatgcaa cctactatgc cgactctgtg 540
 aagggtagat tcaccatctc aagagatgat tcaaagaact cactgtatct gcaaatgaac 600
 agcctgaaaa ccgaggacac ggccgtgtat tactgtgtga gacacggtaa cttcggcaat 660
 tcttacgtgt cttggtttgc ttattgggga caggggacac tgggtgactgt gtcttccgga 720
 ggatgtggcg gtggagaagt ggccgactg gagaaagagg ttgctgcttt ggagaaggag 780
 gtcgctgcac ttgaaaagga ggtcgcagcc ctggagaaag gcggcgggga caaaactcac 840
 acatgcccac cgtgcccagc acctgaagcc gcgggggggac cgtcagtcct cctcttcccc 900
 ccaaaaccca aggacaccct catgatctcc cggaccctg aggtcacatg cgtggtggtg 960
 gacgtgagcc acgaagacc tgaggtcaag ttcaactggt acgtggacgg cgtggagggtg 1020
 cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 1080
 gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggtctcc 1140
 aacaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 1200
 gaaccacagg tgtacaccct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc 1260
 ctgtggtgcc tgggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat 1320
 gggcagccgg agaacaacta caagaccag cctcccgtgc tggactccga cggctccttc 1380
 ttctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 1440
 tgctccgtga tgcattgagg tctgcacaac cactacacgc agaagagcct ctccctgtct 1500
 ccgggtaaa 1509

<210> 222
 <211> 271
 <212> PRT
 <213> Artificial Sequence

<220>

<223> Second Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 2"
Tri-Specific Binding Molecule

<400> 222

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
85 90 95

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

Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
115 120 125

Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly
130 135 140

Tyr Thr Phe Thr Gly Ser Trp Met Asn Trp Val Arg Gln Ala Pro Gly
145 150 155 160

Gln Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr
165 170 175

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

Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe
210 215 220

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Cys
225 230 235 240

Gly Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys
245 250 255

Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 223
<211> 813
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Second Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x DR5 mAb 2" Tri-Specific Binding Molecule

<400> 223
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
aagccaggac aggcaccaag gggcctgac ggggggtacaa aaaaaagggc tccctggacc 180
cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
gggggtggca caaaactgac tgtgctggga ggggggtggat ccggcggagg tggacaggtc 360
cagctggtcc agagcggggc cgaagtcaaa aaaccggag caagcgtgaa ggtctcctgc 420
aaagcatcag gctatacatt tacaggcagc tggatgaact ggggtaggca ggctccagga 480
cagggactgg agtggatcgg gcgcatctac cctggagacg gcgaaactaa ctataatgga 540
aagttcaaag accgagtgac catcacagcc gataagtcta ctagtaccgc ctacatggag 600
ctgagctccc tgcggtctga agataccgcc gtctactatt gcgctagaat ttacggaaac 660
aatgtctatt ttgacgtgtg ggggcaggga acaactgtga ctgtctcctc cggaggatgt 720
ggcgggtggaa aagtggccgc actgaaggag aaagttgctg ctttgaaaga gaaggtcgcc 780
gcacttaagg aaaaggctgc agccctgaaa gag 813

<210> 224
<211> 449
<212> PRT
<213> Artificial Sequence

<220>
<223> Third Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 2"
Tri-Specific Binding Molecule

<400> 224
Lys Val Gln Leu Gln Gln Ser Gly Ala Glu Leu Val Lys Pro Gly Ala
1 5 10 15
Ser Val Lys Leu Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Glu Tyr
20 25 30
Ile Leu His Trp Val Lys Gln Lys Ser Gly Gln Gly Leu Glu Trp Ile
35 40 45
Gly Trp Phe Tyr Pro Gly Asn Asn Asn Ile Lys Tyr Asn Glu Lys Phe
50 55 60

Lys Asp Lys Ala Thr Leu Thr Ala Asp Lys Ser Ser Ser Thr Val Tyr
 65 70 75 80
 Met Glu Leu Ser Arg Leu Thr Ser Glu Asp Ser Ala Val Tyr Phe Cys
 85 90 95
 Ala Arg His Glu Gln Gly Pro Gly Tyr Phe Asp Tyr Trp Gly Gln Gly
 100 105 110
 Thr Thr Leu Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
 115 120 125
 Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
 130 135 140
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
 145 150 155 160
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
 165 170 175
 Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
 180 185 190
 Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
 195 200 205
 Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys
 210 215 220
 Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro
 225 230 235 240
 Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 245 250 255
 Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
 260 265 270
 Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
 275 280 285
 Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
 290 295 300
 Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
 305 310 315 320
 Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
 325 330 335

Thr Ile Ser Lys₃₄₀ Ala Lys Gly Gln₃₄₅ Pro Arg Glu Pro Gln₃₅₀ Val Tyr Thr

Leu Pro Pro₃₅₅ Ser Arg Glu Glu Met₃₆₀ Thr Lys Asn Gln₃₆₅ Val Ser Leu Ser

Cys Ala Val Lys Gly Phe Tyr₃₇₅ Pro Ser Asp Ile Ala₃₈₀ Val Glu Trp Glu

Ser Asn Gly Gln Pro Glu₃₉₀ Asn Asn Tyr Lys Thr₃₉₅ Thr Pro Pro Val Leu₄₀₀

Asp Ser Asp Gly Ser₄₀₅ Phe Phe Leu Val Ser₄₁₀ Lys Leu Thr Val Asp₄₁₅ Lys

Ser Arg Trp Gln₄₂₀ Gln Gly Asn Val Phe₄₂₅ Ser Cys Ser Val Met₄₃₀ His Glu

Ala Leu His₄₃₅ Asn Arg Tyr Thr Gln₄₄₀ Lys Ser Leu Ser₄₄₅ Leu Ser Pro Gly

Lys

<210> 225
<211> 1347
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 2" Tri-Specific Binding Molecule

<400> 225
aaggtccagc tgcagcagtc tggagctgaa ctggtgaaac ccggggcatc agtgaagctg 60
tcctgcaagg cttctgggta caccttcact gagtatattt tacactgggt aaagcagaag 120
tctggacagg gtcttgagtg gattgggtgg ttttatcctg gaaataataa tataaagtac 180
aatgagaaat tcaaggacaa ggccacactg actgcggaca aatcctccag cacagtctat 240
atggaactta gtagattgac atctgaagac tctgcggtct atttctgtgc aagacacgaa 300
caaggaccag gttactttga ctactggggc caaggcacca ctctcacagt ctctccgcc 360
tccaccaagg gcccatcggc cttccccctg gcaccctcct ccaagagcac ctctgggggc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca gcttgggcac ccagacctac 600
atctgcaacg tgaatcacia gccagcaac accaaggtgg acaagagagt tgagcccaaa 660
tcttgtgaca aaactcacac atgccaccg tgcccagcac ctgaagccgc ggggggaccg 720
tcagtcttcc tcttcccccc aaaaccaag gacaccctca tgatctcccg gacccttag 780

gtcacatgcg tgggtggtgga cgtgagccac gaagaccctg aggtcaagtt caactggtac 840
 gtggacggcg tggaggtgca taatgccaag acaaagccgc gggaggagca gtacaacagc 900
 acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actggctgaa tggcaaggag 960
 tacaagtgca aggtctccaa caaagccctc ccagccccca tcgagaaaac catctccaaa 1020
 gccaaagggc agccccgaga accacaggtg tacaccctgc ccccatcccg ggaggagatg 1080
 accaagaacc aggtcagcct gagttgcgca gtcaaaggct tctatcccag cgacatcgcc 1140
 gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tcccgtagctg 1200
 gactccgacg gctccttctt cctcgtcagc aagctcaccg tggacaagag caggtggcag 1260
 caggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaaccg ctacacgcag 1320
 aagagcctct ccctgtctcc gggtaaa 1347

<210> 226
 <211> 214
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Fourth Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x DR5 mAb 2"
 Tri-Specific Binding Molecule

<400> 226

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

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

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

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

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

Glu Asp Leu Thr Leu Tyr Tyr Cys Gln Gln His Tyr Ile Thr Pro Trp
 85 90 95

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

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

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

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

145 150 155 160

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

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

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

Phe Asn Arg Gly Glu Cys
 210

<210> 227
 <211> 642
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Fourth Polypeptide Chain of "gpA33 mAb 1
 x CD3 mAb 2 x DR5 mAb 2" Tri-Specific Binding Molecule

<400> 227
 gacattgtga tgaccagtc tcacaaattc atgtccactt cagtaggaga cagggtcagc 60
 atcacctgca aggccagtca ggatgtgaat actgctgtag cctggtatca acaaaaacca 120
 gggcaatctc ctactact gatttactgg gcatccaccc ggcacactgg agtccttgat 180
 cgcttcacag gcagtggatc tgggacagat tatacactca ccatcaaaag tgtgcaggct 240
 gaagacctga cactttatta ctgtcagcaa cactatatca ctccgtggac gttcgggtgga 300
 ggcaccaagc tggaaatcaa acgtacggtg gctgcacat cggtcttcat cttcccgcc 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480
 gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 228
 <211> 503
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> First Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 228

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

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

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

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
305 310 315 320

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
325 330 335

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
340 345 350

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
355 360 365

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
370 375 380

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
385 390 395 400

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
405 410 415

Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
420 425 430

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
435 440 445

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
450 455 460

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
465 470 475 480

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
485 490 495

Leu Ser Leu Ser Pro Gly Lys
500

<210> 229
<211> 1508
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding First Polypeptide Chain of "EphA2 mAb 1 x
CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 229
gatatccaga tgacacagac tacatcctcc ctgtctgcct ctctgggaga cagaatcacc 60
atcagttgca gggcaagtca ggacattagc aattatttaa actggtatca gcagaaacca 120
gatggaactg ttaaactcct gatctactac acatcaagat tacactcagg agtcccatca 180

aggttcagtg gcagtgggtc tggaacagat tattctctca ccattagcaa cctggagcaa 240
 gaagatattg ccacttactt ttgccaacag ggttatacgc tgtacacgtt cggagggggg 300
 accaagctgg aaataaaagg tggaggatcc ggcggcggag gcgaggtgca gctggtggag 360
 tctgggggag gcttgggtcca gcctggaggg tccctgagac tctcctgtgc agcctctgga 420
 ttcaccttca gcacatacgc tatgaattgg gtccgccagg ctccagggaa ggggctggag 480
 tgggttggaa ggatcaggtc caagtacaac aattatgcaa cctactatgc cgactctgtg 540
 aagggtagat tcaccatctc aagagatgat tcaaagaact cactgtatct gcaaatgaac 600
 agcctgaaaa ccgaggacac ggccgtgtat tactgtgtga gacacggtaa cttcggcaat 660
 tcttacgtgt cttgggtttgc ttattgggga caggggacac tgggtgactgt gtcttccgga 720
 ggatgtggcg gtggagaagt ggccgcactg gagaaagagg ttgctgcttt ggagaaggag 780
 gtcgctgcac ttgaaaagga ggtcgcagcc ctggagaaag gcggcgggga caaaactcac 840
 acatgcccac cgtgccagc acctgaagcc gcggggggac cgtcagtctt cctcttcccc 900
 ccaaaacca aggacacct catgatctcc cggaccctg aggtcacatg cgtggtggtg 960
 gacgtgagcc acgaagacc tgaggtcaag ttcaactggt acgtggacgg cgtggaggtg 1020
 cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 1080
 gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggtctcc 1140
 aacaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 1200
 gaaccacagg tgtacaccct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc 1260
 ctgtggtgcc tgggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat 1320
 gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggctccttc 1380
 ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 1440
 tgctccgtga tgcattgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct 1500
 ccgggtaa 1508

<210> 230
 <211> 270
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 230

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
85 90 95

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

Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Lys Glu Ser Gly Pro Gly
115 120 125

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

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

Lys Gly Leu Glu Trp Leu Gly Met Ile Trp Gly Gly Gly Ser Thr Asp
165 170 175

Tyr Asn Ser Ala Leu Lys Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser
180 185 190

Lys Ser Gln Val Phe Leu Lys Met Asn Ser Leu Gln Thr Asp Asp Thr
195 200 205

Ala Met Tyr Tyr Cys Ala Arg Lys His Gly Asn Tyr Tyr Thr Met Asp
210 215 220

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Gly Gly Cys Gly
225 230 235 240

Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
245 250 255

Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 231
<211> 810
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Second Polypeptide Chain of "EphA2 mAb 1
x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 231
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg

60

acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
 aagccaggac aggcaccaag gggcctgata ggggggtacaa aaaaaagggc tccctggacc 180
 cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
 caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
 ggggggtggc caaaactgac tgtgctggga ggggggtggat ccggcggagg tggacaggtg 360
 cagctgaagg agtcaggacc tggcctggtg gcaccctcac agagcctgtc catcacatgc 420
 actgtctctg ggttctcatt atccagatat agtgtacact gggttcgcca gcctccagga 480
 aaggggtctg agtggctggg aatgatattg ggtggtggaa gcacagacta taattcagct 540
 ctcaaattcca gactgagtat cagcaaggac aactccaaga gccaagtttt cttaaaaatg 600
 aacagtctgc aaactgatga cacagccatg tactactgtg ccagaaaaca tggtaactac 660
 tatactatgg actactgggg tcaaggaacc tcagtcaccg tctcctccgg aggatgtggc 720
 ggtggaaaag tggccgcact gaaggagaaa gttgctgctt tgaaagagaa ggtcgccgca 780
 cttaaggaaa aggtcgcagc cctgaaagag 810

<210> 232

<211> 451

<212> PRT

<213> Artificial Sequence

<220>

<223> Third Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
Tri-Specific Binding Molecule

<400> 232

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

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

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

Gly Glu Ile Asn Pro Asp Ser Asn Thr Ile Asn Tyr Thr Pro Ser Leu
 50 55 60

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

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

Thr Arg Arg Ala Tyr Tyr Gly Asn Pro Ala Trp Phe Ala Tyr Trp Gly
 100 105 110

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

Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala
 130 135 140
 Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val
 145 150 155 160
 Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala
 165 170 175
 Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val
 180 185 190
 Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 290 295 300
 Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400

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

Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
420 425 430

His Glu Ala Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser
435 440 445

Pro Gly Lys
450

<210> 233
<211> 1353
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 233
gaggtgaagt ttctcgagtc tggaggtggc ctggtgcagc ctggaggatc cctgaaactc 60
tcctgtgtag cctcaggatt cgattttagt agatactgga tgagttgggt ccggcaggct 120
ccagggaaag ggctagaatg gattggagaa attaatccag atagcaatac gataaactat 180
acgccatctc taaaggataa attcatcatc tccagagaca acgccaaaaa tacgctgtat 240
ctgcaaatga ccaaagttag atctgaggac acagcccttt attattgtac aagaagggcc 300
tactatggta acccggcctg gtttgcttac tggggccaag ggactctggt cactgtctct 360
tccgcctcca ccaagggccc atcggctctc cccctggcac cctcctcaa gagcacctct 420
gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacgggtg 480
tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc 540
tcaggactct actccctcag cagcgtgggt accgtgccct ccagcagctt gggcacccag 600
acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gagagttgag 660
cccaaattct gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga agccgcgggg 720
ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccgacc 780
cctgaggta catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac 840
tggtacgtgg acggcgtgga ggtgcataat gccaagacaa agccgcggga ggagcagtac 900
aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc 960
aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc 1020
tccaaagcca aagggcagcc ccgagaacca caggtgtaca cctgcccc atcccgggag 1080
gagatgacca agaaccaggt cagcctgagt tgcgcagtca aaggcttcta tcccagcgac 1140
atcgccgtgg agtgggagag caatgggag ccggagaaca actacaagac cagcctccc 1200
gtgctggact ccgacggctc cttcttcctc gtcagcaagc tcaccgtgga caagagcagg 1260
tggcagcagg ggaacgtctt ctcatgctcc gtgatgcatg aggtcttgca caaccgtac 1320

acgcagaaga gcctctccct gtctccgggt aaa

1353

<210> 234
<211> 218
<212> PRT
<213> Artificial Sequence

<220>
<223> Fourth Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x DR5 mAb 1"
Tri-Specific Binding Molecule

<400> 234

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 235
 <211> 654
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Fourth Polypeptide Chain of "EphA2 mAb 1
 x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 235
 gacattgtgc tgacacagtc tcctgcttcc ttagctgtat ctctcgggca gagggccacc 60
 atctcatgca gggccagcaa aagtgtcagt tcctctggct atagttatat gcactggtac 120
 caacagaaac caggacagcc acccaaagtc ctcatctttc tttcatccaa cctagattct 180
 ggggtccctg ccaggttcag tggcagtggg tctgggacag acttcaccct caacatccat 240
 cctgtggagg atggggatgc tgcaacctat tactgtcagc acagtaggga tcttcctccg 300
 acgttcggtg gaggcaccaa gctggaaatc aaacgtacgg tggctgcacc atcggctcttc 360
 atcttcccgc catctgatga gcagttgaaa tctggaactg cctctgttgt gtgcctgctg 420
 aataacttct atcccagaga ggccaaagta cagtggaagg tggataacgc cctccaatcg 480
 ggtaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta cagcctcagc 540
 agcaccctga cgctgagcaa agcagactac gagaaacaca aagtctacgc ctgcgaagtc 600
 acccatcagg gcctgagctc gcccgtcaca aagagcttca acaggggaga gtgt 654

<210> 236
 <211> 508
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> First Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 236
 Asp Val Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Ser Leu Gly
 1 5 10 15
 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
 20 25 30
 Ser Gly Asn Thr Tyr Leu His Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
 85 90 95

Thr His Val Pro Thr Phe Gly Ser Gly Thr Lys Leu Glu Ile Lys Gly
 100 105 110
 Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly
 115 120 125
 Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser
 130 135 140
 Gly Phe Thr Phe Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro
 145 150 155 160
 Gly Lys Gly Leu Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn
 165 170 175
 Tyr Ala Thr Tyr Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser
 180 185 190
 Arg Asp Asp Ser Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys
 195 200 205
 Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly
 210 215 220
 Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val
 225 230 235 240
 Thr Val Ser Ser Gly Gly Cys Gly Gly Gly Glu Val Ala Ala Leu Glu
 245 250 255
 Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu
 260 265 270
 Val Ala Ala Leu Glu Lys Gly Gly Gly Asp Lys Thr His Thr Cys Pro
 275 280 285
 Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
 290 295 300
 Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
 305 310 315 320
 Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
 325 330 335
 Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
 340 345 350
 Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
 355 360 365

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
370 375 380

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
385 390 395 400

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
405 410 415

Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
420 425 430

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
435 440 445

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
450 455 460

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
465 470 475 480

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
485 490 495

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
500 505

<210> 237
<211> 1524
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding First Polypeptide Chain of "EphA2 mAb 2 x
CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 237
gatgttgatga tgacccaaac tccactctcc ctgcctgtca gtcttgagaga tcaagcctcc 60
atctcttgca gatctagtca gagccttgta cacagtagtg gaaacaccta ttacattgg 120
tacctgcaga agccaggcca gtctccaaag ctctgatct acaaagtttc caaccgattt 180
tctgggggtcc cagacagggt cagtggcagt ggatcaggga cagatttcac actcaagatc 240
agcagagtgg aggctgagga tctgggagtt tatttctgct ctcaaagtac acatgttccc 300
acgttcggct cggggacaaa gttggaaata aaaggtggag gatccggcgg cggaggcgag 360
gtgcagctgg tggagtctgg gggaggcttg gtccagcctg gagggtcctt gagactctcc 420
tgtgcagcct ctggattcac cttcagcaca tacgctatga attgggtccg ccaggctcca 480
gggaaggggc tggagtgggt tggaaggatc aggtccaagt acaacaatta tgcaacctac 540
tatgccgact ctgtgaaggg tagattcacc atctcaagag atgattcaaa gaactcactg 600
tatctgcaaa tgaacagcct gaaaaccgag gacacggccg tgtattactg tgtgagacac 660
ggtaacttcg gcaattctta cgtgtcttgg tttgcttatt ggggacaggg gacactgggtg 720

actgtgtctt ccggaggatg tggcgggtgga gaagtggccg cactggagaa agaggttgct 780
gctttggaga aggaggtcgc tgcacttgaa aaggaggtcg cagccctgga gaaaggcggc 840
ggggacaaaa ctcacacatg cccaccgtgc ccagcacctg aagccgcggg gggaccgtca 900
gtcttcctct tcccccaaa acccaaggac accctcatga tctcccggac ccctgaggtc 960
acatgcgtgg tgggtggacgt gagccacgaa gaccctgagg tcaagttcaa ctggtacgtg 1020
gacggcgtgg aggtgcataa tgccaagaca aagccgcggg aggagcagta caacagcacg 1080
taccgtgtgg tcagcgtcct caccgtcctg caccaggact ggctgaatgg caaggagtac 1140
aagtgcaagg tctccaacaa agccctccca gccccatcg agaaaaccat ctccaaagcc 1200
aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga ggagatgacc 1260
aagaaccagg tcagcctgtg gtgcctggtc aaaggcttct atcccagcga catcgccgtg 1320
gagtgaggaga gcaatgggca gccggagaac aactacaaga ccacgcctcc cgtgctggac 1380
tccgacggct ctttcttct ctacagcaag ctaccgtgg acaagagcag gtggcagcag 1440
gggaacgtct tctcatgctc cgtgatgcat gaggctctgc acaaccacta cacgcagaag 1500
agcctctccc tgtctccggg taaa 1524

<210> 238
<211> 270
<212> PRT
<213> Artificial Sequence

<220>
<223> Second Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x DR5 mAb 1"
Tri-Specific Binding Molecule

<400> 238

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
85 90 95

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

Gly Ser Gly Gly Gly Gly Gln Ile Gln Leu Val Gln Ser Gly Pro Glu
 115 120 125
 Leu Lys Lys Pro Gly Glu Thr Val Lys Ile Ser Cys Lys Ala Ser Gly
 130 135 140
 Phe Thr Phe Thr Asn Tyr Gly Met Asn Trp Val Lys Gln Ala Pro Gly
 145 150 155 160
 Lys Gly Leu Lys Trp Met Gly Trp Ile Asn Thr Tyr Ile Gly Glu Pro
 165 170 175
 Thr Tyr Ala Asp Asp Phe Lys Gly Arg Phe Val Phe Ser Leu Glu Thr
 180 185 190
 Ser Ala Ser Thr Ala Tyr Leu Gln Ile Asn Asn Leu Lys Asn Glu Asp
 195 200 205
 Met Ala Thr Tyr Phe Cys Ala Arg Glu Leu Gly Pro Tyr Tyr Phe Asp
 210 215 220
 Tyr Trp Gly Gln Gly Thr Thr Leu Thr Val Ser Ser Gly Gly Cys Gly
 225 230 235 240
 Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
 245 250 255
 Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
 260 265 270

<210> 239
 <211> 810
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Second Polypeptide Chain of "EphA2 mAb 2
 x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 239
 caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
 acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
 aagccaggac aggcaccaag gggcctgata ggggggtacaa aaaaaagggc tccctggacc 180
 cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
 caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
 ggggggtggc caaaactgac tgtgctggga ggggggtggat ccggcggagg tggacagatc 360
 cagttggtgc agtctggacc tgagctgaag aagcctggag agacagtcaa gatctcctgc 420
 aaggcttctg ggtttacctt cacaactat ggaatgaact ggggtgaagca ggctccagga 480
 aagggtttaa agtggatggg ctggataaac acctatattg gagagccgac atatgctgat 540
 gacttcaagg gacggtttgt cttctctttg gaaacctctg ccagcactgc ctatttgcag 600

atcaacaacc tcaaaaatga ggacatggcc acatatttct gtgcaagaga actgggacca 660
tactactttg actactgggg ccaaggcacc actctcacag tctcctccgg aggatgtggc 720
ggtggaaaag tggccgcact gaaggagaaa gttgctgctt tgaaagagaa ggtcgccgca 780
cttaaggaaa aggtcgcagc cctgaaagag 810

<210> 240
<211> 451
<212> PRT
<213> Artificial Sequence

<220>
<223> Third Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x DR5 mAb 1"
Tri-Specific Binding Molecule

<400> 240

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

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

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

Gly Glu Ile Asn Pro Asp Ser Asn Thr Ile Asn Tyr Thr Pro Ser Leu
50 55 60

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

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

Thr Arg Arg Ala Tyr Tyr Gly Asn Pro Ala Trp Phe Ala Tyr Trp Gly
100 105 110

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

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

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

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

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

Pro Ser Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His
 195 200 205
 Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys
 210 215 220
 Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly
 225 230 235 240
 Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met
 245 250 255
 Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His
 260 265 270
 Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val
 275 280 285
 His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr
 290 295 300
 Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly
 305 310 315 320
 Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile
 325 330 335
 Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val
 340 345 350
 Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser
 355 360 365
 Leu Ser Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu
 370 375 380
 Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro
 385 390 395 400
 Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val
 405 410 415
 Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met
 420 425 430
 His Glu Ala Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser
 435 440 445
 Pro Gly Lys
 450

<210> 241

<211> 1353
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Third Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 241
 gaggtgaagt ttctcgagtc tggaggtggc ctggtgcagc ctggaggatc cctgaaactc 60
 tcctgtgtag cctcaggatt cgatttttagt agatactgga tgagttgggt ccggcaggct 120
 ccagggaag ggctagaatg gattggagaa attaatccag atagcaatac gataaactat 180
 acgccatctc taaaggataa attcatcatc tccagagaca acgccaaaaa tacgctgtat 240
 ctgcaaatga ccaaagttag atctgaggac acagcccttt attattgtac aagaagggcc 300
 tactatggta acccggcctg gtttgcttac tggggccaag ggactctggt cactgtctct 360
 tccgcctcca ccaagggccc atcggctctc cccctggcac cctcctcaa gagcacctct 420
 gggggcacag cggccctggg ctgcctggc aaggactact tccccgaacc ggtgacgggtg 480
 tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggtgt cctacagtcc 540
 tcaggactct actccctcag cagcgtgggt accgtgccct ccagcagctt gggcacccag 600
 acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gagagttgag 660
 cccaaatctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga agccgcgggg 720
 ggaccgtcag tcttctctt cccccaaaa cccaaggaca ccctcatgat ctcccgacc 780
 cctgagggtca catgcgtggt ggtggacgtg agccacgaag accctgaggt caagttcaac 840
 tggtagtggt acggcgtgga ggtgcataat gccaaagaaa agccgcggga ggagcagtac 900
 aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc 960
 aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc 1020
 tccaaagcca aagggcagcc ccgagaacca caggtgtaca cctgcccc atcccgggag 1080
 gagatgacca agaaccaggt cagcctgagt tgcgcagtca aaggcttcta tcccagcgac 1140
 atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc 1200
 gtgctggact ccgacggctc cttcttctc gtcagcaagc tcaccgtgga caagagcagg 1260
 tggcagcagg ggaacgtctt ctcatgtctc gtgatgcatg aggctctgca caaccgtac 1320
 acgcagaaga gcctctccct gtctccgggt aaa 1353

<210> 242
 <211> 218
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Fourth Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 242

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 243

<211> 654

<212> DNA

<213> Artificial Sequence

<220>

<223> Polynucleotide Encoding Fourth Polypeptide Chain of "EphA2 mAb 2
x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 243

gacattgtgc tgacacagtc tcctgcttcc ttagctgtat ctctcgggca gagggccacc 60

atctcatgca gggccagcaa aagtgtcagt tcctctggct atagttatat gcactggtac 120

caacagaaac caggacagcc acccaaagtc ctcatctttc tttcatccaa cctagattct 180

ggggtccctg ccaggttcag tggcagtggg tctgggacag acttcaccct caacatccat 240
 cctgtggagg atggggatgc tgcaacctat tactgtcagc acagtaggga tcttcctccg 300
 acgttcggtg gaggcaccaa gctggaaatc aaacgtacgg tggctgcacc atcggctcttc 360
 atcttcccg ccatctgatga gcagttgaaa tctggaactg cctctgttgt gtgcctgctg 420
 aataacttct atcccagaga ggccaaagta cagtggaagg tggataacgc cctccaatcg 480
 ggtaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta cagcctcagc 540
 agcaccctga cgctgagcaa agcagactac gagaaacaca aagtctacgc ctgcgaagtc 600
 acccatcagg gcctgagctc gcccgtcaca aagagcttca acaggggaga gtgt 654

<210> 244
 <211> 504
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> First Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 244

Asp Ile Val Leu Thr Gln Ser His Arg Ser Met Ser Thr Ser Val Gly
 1 5 10 15

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

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

Phe Trp Ala Ser Thr Arg His Ala Gly Val Pro Asp Arg Phe Thr Gly
 50 55 60

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

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

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

Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
 115 120 125

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

Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
 145 150 155 160

Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr
 165 170 175
 Tyr Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser
 180 185 190
 Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr
 195 200 205
 Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val
 210 215 220
 Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 225 230 235 240
 Gly Gly Cys Gly Gly Gly Glu Val Ala Ala Leu Glu Lys Glu Val Ala
 245 250 255
 Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu
 260 265 270
 Glu Lys Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
 275 280 285
 Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
 290 295 300
 Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
 305 310 315 320
 Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
 325 330 335
 Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
 340 345 350
 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 355 360 365
 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 370 375 380
 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 385 390 395 400
 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
 405 410 415
 Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser
 420 425 430
 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 435 440 445

435

440

445

Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 450 455 460

Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 465 470 475 480

Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 485 490 495

Ser Leu Ser Leu Ser Pro Gly Lys
 500

<210> 245
 <211> 1512
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding First Polypeptide Chain of "EphA2 mAb 3 x
 CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 245
 gacattgtgc tgaccagtc tcacagatcc atgtccacat cagtaggaga caggggtcaac 60
 atcacctgca aggccagtc ggatgtgact actgctgtag cctggtatca acaaaaacca 120
 gggcaatctc ctaaattact gattttctgg gcatccaccc ggcacgctgg agtccctgat 180
 cgcttcacag gcagtggatc tgggacagat tttactctca ccatcagcag tgtgcaggct 240
 ggagacctgg cactttatta ctgtcaacaa cattatagca caccgtacac attcggaggg 300
 gggaccaagc tggaaataaa aggtggagga tccggcggcg gaggcgaggt gcagctgggtg 360
 gagtctgggg gaggttgggt ccagcctgga gggtcctga gactctcctg tgcagcctct 420
 ggattcacct tcagcacata cgctatgaat tgggtccgcc aggtccagg gaaggggctg 480
 gagtggggtg gaaggatcag gtccaagtac aacaattatg caacctacta tgccgactct 540
 gtgaagggtg gattcacct ctcaagagat gattcaaaga actcactgta tctgcaaagt 600
 aacagcctga aaaccgagga cacggccgtg tattactgtg tgagacacgg taacttcggc 660
 aattcttacg tgtcttggtt tgcttattgg ggacagggga cactggtgac tgtgtcttcc 720
 ggaggatgtg gcggtggaga agtggccgca ctggagaaag aggttgctgc tttggagaag 780
 gaggtcgctg cacttgaaaa ggaggtcgca gccctggaga aaggcggcgg ggacaaaact 840
 cacacatgcc caccgtgccc agcacctgaa gccgcggggg gaccgtcagt cttcctcttc 900
 ccccaaaaac ccaaggacac cctcatgata tcccggaccc ctgaggtcac atgcgtgggtg 960
 gtggacgtga gccacgaaga ccctgaggtc aagttcaact ggtacgtgga cggcgtggag 1020
 gtgcataatg ccaagacaaa gccgcgggag gagcagtaca acagcacgta ccgtgtgggtc 1080
 agcgtcctca ccgtcctgca ccaggactgg ctgaatggca aggagtacaa gtgcaagggtc 1140
 tccaacaaag ccctcccagc ccccatcgag aaaaccatct ccaaagccaa agggcagccc 1200

cgagaaccac aggtgtacac cctgccccca tcccgggagg agatgaccaa gaaccaggtc 1260
 agcctgtggt gcctgggtcaa aggcttctat cccagcgaca tcgccgtgga gtgggagagc 1320
 aatgggcagc cggagaacaa ctacaagacc acgcctcccg tgctggactc cgacgggtcc 1380
 ttcttcctct acagcaagct caccgtggac aagagcaggt ggcagcaggg gaacgtcttc 1440
 tcatgctccg tgatgcatga ggctctgcac aaccactaca cgcagaagag cctctccctg 1500
 tctccgggta aa 1512

<210> 246
 <211> 270
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 246

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95

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

Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly
 115 120 125

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

Phe Thr Phe Thr Asp His Tyr Met Tyr Trp Val Arg Gln Thr Pro Glu
 145 150 155 160

Lys Arg Leu Glu Trp Val Ala Thr Ile Ser Asp Gly Gly Ser Phe Thr
 165 170 175

Ser Tyr Pro Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Ile
 Page 134

180

185

190

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

Thr Ala Met Tyr Tyr Cys Thr Arg Asp Glu Ser Asp Arg Pro Phe Pro
 210 215 220

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Cys Gly
 225 230 235 240

Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
 245 250 255

Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
 260 265 270

<210> 247
 <211> 810
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Second Polypeptide Chain of "EphA2 mAb 3
 x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 247
 caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
 acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
 aagccaggac aggcaccaag gggcctgatc ggggggtacaa aaaaaagggc tccctggacc 180
 cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
 caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
 ggggggtggc caaaactgac tgtgctggga gggggtggat ccggcgagg tggagaagtg 360
 cagctggtgg agtctggggg aggctcagtg aagcctggag ggtccctgaa actctcctgt 420
 gcagcctctg gattcacttt cactgaccat tacatgtatt gggttcgcca gactccggaa 480
 aagaggctgg agtgggtcgc aaccattagt gatggcggta gtttcacctc ctatccagac 540
 agtgtgaagg ggcgattcac catctccaga gacattgcc aagaacaacct gtacctcaa 600
 atgagcagtc tgaagtctga ggacacagcc atgtattact gtacaagaga tgagagcgat 660
 aggccgtttc ctactgggg ccaagggact ctggtcactg tctcctccgg aggatgtggc 720
 ggtggaaaag tggccgcact gaaggagaaa gttgctgctt tgaaagagaa ggtcgccgca 780
 ctaaggaaa aggtcgcagc cctgaaagag 810

<210> 248
 <211> 451
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Third Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x DR5 mAb 1"
 Page 135

Tri-Specific Binding Molecule

<400> 248

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

[illegible]

ctgcaaatga ccaaagttag atctgaggac acagcccttt attattgtac aagaagggcc 300
 tactatggta acccggcctg gtttgcttac tggggccaag ggactctggt cactgtctct 360
 tccgcctcca ccaagggccc atcgggtcttc cccctggcac cctcctccaa gagcacctct 420
 gggggcacag cggccctggg ctgcctggtc aaggactact tccccgaacc ggtgacggtg 480
 tcgtggaact caggcgccct gaccagcggc gtgcacacct tcccggctgt cctacagtcc 540
 tcaggactct actccctcag cagcgtggtg accgtgccct ccagcagctt gggcaccag 600
 acctacatct gcaacgtgaa tcacaagccc agcaacacca aggtggacaa gagagttgag 660
 cccaaatctt gtgacaaaac tcacacatgc ccaccgtgcc cagcacctga agccgcgggg 720
 ggaccgtcag tcttcctctt cccccaaaa cccaaggaca ccctcatgat ctcccgacc 780
 cctgagggtca catgctggtt ggtggacgtg agccacgaag accctgaggt caagttcaac 840
 tggtagctgg acggcgtgga ggtgcataat gccaaagaaa agccgcggga ggagcagtac 900
 aacagcacgt accgtgtggt cagcgtcctc accgtcctgc accaggactg gctgaatggc 960
 aaggagtaca agtgcaaggt ctccaacaaa gccctcccag ccccatcga gaaaaccatc 1020
 tccaaagcca aagggcagcc ccgagaacca caggtgtaca ccctgcccc atcccgggag 1080
 gagatgacca agaaccaggt cagcctgagt tgcgcagtca aaggcttcta tcccagcgac 1140
 atcgccgtgg agtgggagag caatgggcag ccggagaaca actacaagac cagcctccc 1200
 gtgctggact ccgacggctc cttcttcctc gtcagcaagc tcaccgtgga caagagcagg 1260
 tggcagcagg ggaacgtctt ctcagtctcc gtgatgcatg aggtcttgca caaccgtac 1320
 acgcagaaga gcctctccct gtctccgggt aaa 1353

<210> 250
 <211> 218
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Fourth Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x DR5 mAb 1"
 Tri-Specific Binding Molecule

<400> 250

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

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

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

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

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

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

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

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

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

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

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

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

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

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

<210> 251

<211> 654

<212> DNA

<213> Artificial Sequence

<220>

<223> Polynucleotide Encoding Fourth Polypeptide Chain of "EphA2 mAb 3
x CD3 mAb 2 x DR5 mAb 1" Tri-Specific Binding Molecule

<400> 251

gacattgtgc tgacacagtc tcctgcttcc ttagctgtat ctctcgggca gagggccacc 60

atctcatgca gggccagcaa aagtgtcagt tcctctggct atagttatat gcactggtac 120

caacagaaac caggacagcc acccaaagtc ctcatctttc tttcatccaa cctagattct 180

ggggtccctg ccaggttcag tggcagtggg tctgggacag acttcaccct caacatccat 240

cctgtggagg atggggatgc tgcaacctat tactgtcagc acagtaggga tcttcctccg 300

acgttcggtg gaggcaccaa gctggaaatc aaacgtacgg tggctgcacc atcggtcttc 360

atcttcccgc catctgatga gcagttgaaa tctggaactg cctctgttgt gtgcctgctg 420

aataacttct atcccagaga ggccaaagta cagtggaagg tggataacgc cctccaatcg 480

ggtaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta cagcctcagc 540

agcaccctga cgctgagcaa agcagactac gagaaacaca aagtctacgc ctgcgaagtc 600

acccatcagg gcctgagctc gcccgtcaca aagagcttca acaggggaga gtgt 654

<210> 252
<211> 503
<212> PRT
<213> Artificial Sequence

<220>
<223> First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 1" Tri-Specific Binding Molecule

<400> 252

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

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
20 25 30

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

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Ser Gly Gly
100 105 110

Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
115 120 125

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
130 135 140

Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
145 150 155 160

Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr
165 170 175

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

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

Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser
210 215 220

Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
Page 140

225		230		235		240
Gly Cys Gly Gly	Gly ₂₄₅ Glu Val Ala Ala	Leu ₂₅₀ Glu Lys Glu Val	Ala ₂₅₅ Ala			
Leu Glu Lys	Glu ₂₆₀ Val Ala Ala	Leu ₂₆₅ Lys Glu Val	Ala ₂₇₀ Ala	Leu Glu		
Lys Gly	Gly ₂₇₅ Gly Asp Lys Thr	His ₂₈₀ Thr Cys Pro	Pro ₂₈₅ Cys Pro	Ala Pro		
Glu	Ala ₂₉₀ Ala Gly Gly	Pro ₂₉₅ Ser Val Phe	Leu Phe	Pro ₃₀₀ Pro	Lys Pro	Lys
Asp ₃₀₅ Thr	Leu Met Ile	Ser ₃₁₀ Arg Thr	Pro Glu	Val ₃₁₅ Thr	Cys Val	Val ₃₂₀ Val
Asp Val	Ser His	Glu ₃₂₅ Asp Pro	Glu Val	Lys ₃₃₀ Phe	Asn Trp	Tyr Val ₃₃₅ Asp
Gly Val	Glu ₃₄₀ Val His	Asn Ala Lys	Thr ₃₄₅ Lys	Pro Arg	Glu Glu	Gln Tyr
Asn Ser	Thr ₃₅₅ Tyr Arg	Val ₃₆₀ Val	Ser ₃₆₅ Val	Leu Thr	Val ₃₆₅ Leu	His Gln Asp
Trp	Leu ₃₇₀ Asn Gly	Lys Glu	Tyr ₃₇₅ Lys	Cys Lys	Val ₃₈₀ Ser	Asn Lys Ala Leu
Pro ₃₈₅ Ala	Pro Ile Glu	Lys ₃₉₀ Thr	Ile Ser	Lys Ala ₃₉₅	Lys Gly	Gln Pro Arg ₄₀₀
Glu Pro	Gln Val Tyr	Thr ₄₀₅ Thr	Leu Pro	Pro ₄₁₀ Ser	Arg Glu	Glu Met Thr ₄₁₅ Lys
Asn Gln	Val ₄₂₀ Ser	Leu Trp	Cys Leu	Val ₄₂₅ Lys	Gly Phe	Tyr Pro ₄₃₀ Ser Asp
Ile Ala	Val ₄₃₅ Glu	Trp Glu	Ser Asn	Gly ₄₄₀ Gln	Pro Glu	Asn ₄₄₅ Asn Tyr Lys
Thr Thr	Pro ₄₅₀ Pro	Val ₄₅₅ Leu	Asp Ser	Asp Gly	Ser Phe	Phe Leu Tyr Ser
Lys ₄₆₅ Leu	Thr Val Asp	Lys ₄₇₀ Ser	Arg Trp	Gln Gln ₄₇₅	Gly Asn	Val Phe Ser ₄₈₀
Cys Ser	Val Met	His ₄₈₅ Glu	Ala Leu	His Asn ₄₉₀	His Tyr	Thr Gln Lys ₄₉₅ Ser
Leu Ser	Leu Ser ₅₀₀	Pro Gly	Lys			

<210> 253
 <211> 1509
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 1" Tri-Specific Binding Molecule

```

<400> 253
gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact      60
attacttgct ctgctaggtc ctcaatcagc ttcattgtact ggtatcagca gaagcccggc      120
aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccgggggt gccatctcgg      180
ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa      240
gatgccgcta cctactattg ccagcagtg agcagctatc ctctgacctt cggacagggg      300
actaaactgg aaatcaaggg tggaggatcc ggcggcggag gcgaggtgca gctggtggag      360
tctgggggag gcttgggtcca gcctggaggg tccctgagac tctcctgtgc agcctctgga      420
ttcaccttca gcacatacgc tatgaattgg gtccgccagg ctccaggga ggggctggag      480
tgggttgga ggatcaggtc caagtacaac aattatgcaa cctactatgc cgactctgtg      540
aagggtagat tcaccatctc aagagatgat tcaaagaact cactgtatct gcaaatgaac      600
agcctgaaaa ccgaggacac ggccgtgtat tactgtgtga gacacggtaa cttcggcaat      660
tcttacgtgt cttggtttgc ttattgggga caggggacac tgggtgactgt gtcttccgga      720
ggatgtggcg gtggagaagt ggccgcactg gagaaagagg ttgctgcttt ggagaaggag      780
gtcgtgcac ttgaaaagga ggtcgcagcc ctggagaaag gcggcgggga caaaactcac      840
acatgcccac cgtgcccagc acctgaagcc gcggggggag cgtcagtcct cctcttcccc      900
ccaaaacca aggacacct catgatctcc cggacccttg aggtcacatg cgtggtggtg      960
gacgtgagcc acgaagacct tgaggtaag ttcaactggt acgtggacgg cgtggagggtg     1020
cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc     1080
gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggctctc     1140
aaciaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga     1200
gaaccacagg tgtacacct gcccccaccc cgggaggaga tgaccaagaa ccaggtcagc     1260
ctgtggtgcc tgggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat     1320
gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggctccttc     1380
ttcctctaca gcaagctcac cgtggacaag agcagggtggc agcaggggaa cgtcttctca     1440
tgctccgtga tgcattgagg tctgcacaac cactacacgc agaagagcct ctccctgtct     1500
ccgggtaaa                                         1509
  
```

<210> 254
 <211> 271
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 1" Tri-Specific Binding Molecule

<400> 254

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95

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

Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
 115 120 125

Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly
 130 135 140

Tyr Thr Phe Thr Gly Ser Trp Met Asn Trp Val Arg Gln Ala Pro Gly
 145 150 155 160

Gln Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr
 165 170 175

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

Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
 195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe
 210 215 220

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Cys
 225 230 235 240

Gly Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys
 245 250 255

Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
 260 265 270

<210> 255
 <211> 813
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Second Polypeptide Chain of "gpA33 mAb 1
 x CD3 mAb 2 x EphA2 mAb 1" Tri-Specific Binding Molecule

<400> 255
 caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
 acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
 aagccaggac aggaccaag gggcctgatc ggggggtacaa acaaaagggc tccctggacc 180
 cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
 caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
 ggggggtggc caaaactgac tgtgctggga ggggggtgat ccggcggagg tggacaggtc 360
 cagctggtcc agagcggggc cgaagtcaaa aaacccggag caagcgtgaa ggtctcctgc 420
 aaagcatcag gctatacatt tacaggcagc tggatgaact gggtgaggca ggctccagga 480
 cagggactgg agtggatcgg gcgcatctac cctggagacg gcgaaactaa ctataatgga 540
 aagttcaaag accgagtgc catcacagcc gataagtcta ctagtaccgc ctacatggag 600
 ctgagctccc tgcggtctga agataccgcc gtctactatt gcgctagaat ttacggaaac 660
 aatgtctatt ttgacgtgtg ggggcaggga acaactgtga ctgtctcctc cggaggatgt 720
 ggcggtggaa aagtggccgc actgaaggag aaagttgctg ctttgaaaga gaaggtcgcc 780
 gcacttaagg aaaaggtcgc agccctgaaa gag 813

<210> 256
 <211> 448
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Third Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb
 1" Tri-Specific Binding Molecule

<400> 256
 Gln Val Gln Leu Lys Glu Ser Gly Pro Gly Leu Val Ala Pro Ser Gln
 1 5 10 15
 Ser Leu Ser Ile Thr Cys Thr Val Ser Gly Phe Ser Leu Ser Arg Tyr
 20 25 30
 Ser Val His Trp Val Arg Gln Pro Pro Gly Lys Gly Leu Glu Trp Leu
 35 40 45

Gly Met Ile Trp Gly Gly Gly Ser Thr Asp Tyr Asn Ser Ala Leu Lys
 Page 144

50

55

60

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

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

Arg Lys His Gly Asn Tyr Tyr Thr Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

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

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

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

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

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

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

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

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser
225 230 235 240

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
245 250 255

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
260 265 270

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
275 280 285

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
290 295 300

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
305 310 315 320

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
325 330 335

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
340 345 350

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser Cys
355 360 365

Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
370 375 380

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
385 390 395 400

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

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
420 425 430

Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 257
<211> 1344
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "gpA33 mAb 1 x
CD3 mAb 2 x EphA2 mAb 1" Tri-Specific Binding Molecule

<400> 257
caggtgcagc tgaaggagtc aggacctggc ctggtggcac cctcacagag cctgtccatc 60
acatgcactg tctctgggtt ctcattatcc agatatagtg tacactgggt tcgccagcct 120
ccaggaaagg gtctggagtg gctgggaatg atatggggtg gtggaagcac agactataat 180
tcagctctca aatccagact gagtatcagc aaggacaact ccaagagcca agttttctta 240
aaaatgaaca gtctgcaaac tgatgacaca gccatgtact actgtgccag aaaacatggt 300
aactactata ctatggacta ctgggggtcaa ggaacctcag tcaccgtctc ctccgcctcc 360
accaagggcc catcgggtctt ccccttgga cccctctcca agagcacctc tgggggcaca 420
gcggccctgg gctgcctggt caaggactac ttccccgaac cgggtgacggt gtcgtggaac 480
tcaggcgcgc tgaccagcgg cgtgcacacc ttcccggtg tcctacagtc ctcaggactc 540
tactccctca gcagcgtggt gaccgtgccc tccagcagct tgggcacca gacctacatc 600
tgcaacgtga atcacaagcc cagcaacacc aaggtggaca agagagttga gcccaaattc 660
tgtgacaaaa ctacacatg cccaccgtgc ccagcacctg aagccgcggg gggaccgtca 720
gtcttcctct tcccccaaa acccaaggac accctcatga tctcccggac ccctgaggtc 780
acatgcgtgg tggtggacgt gagccacgaa gaccctgagg tcaagttcaa ctggtacgtg 840
gacggcgtgg aggtgcataa tgccaagaca aagccgcggg aggagcagta caacagcacg 900

taccgtgtgg tcagcgtcct caccgtcctg caccaggact ggctgaatgg caaggagtag	960
aagtgcaagg tctccaacaa agccctccca gcccccatcg agaaaaccat ctccaaagcc	1020
aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga ggagatgacc	1080
aagaaccagg tcagcctgag ttgcgagtc aaaggcttct atcccagcga catcgccgtg	1140
gagtgggaga gcaatgggca gccggagaac aactacaaga ccacgcctcc cgtgctggac	1200
tccgacggct ctttcttctt cgtcagcaag ctcaccgtgg acaagagcag gtggcagcag	1260
gggaacgtct tctcatgctc cgtgatgcat gaggctctgc acaaccgcta cacgcagaag	1320
agcctctccc tgtctccggg taaa	1344

<210> 258
 <211> 213
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Fourth Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 1" Tri-Specific Binding Molecule

<400> 258

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

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

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

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

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

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

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

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

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

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

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

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

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

Asn Arg Gly Glu Cys
210

<210> 259
<211> 639
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Fourth Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x EphA2 mAb 1" Tri-Specific Binding Molecule

<400> 259
gatatccaga tgacacagac tacatcctcc ctgtctgcct ctctgggaga cagaatcacc 60
atcagttgca gggcaagtca ggacattagc aattatttaa actggtatca gcagaaacca 120
gatggaactg ttaaactcct gatctactac acatcaagat tacactcagg agtcccatca 180
aggttcagtg gcagtgggtc tggaacagat tattctctca ccattagcaa cctggagcaa 240
gaagatattg ccacttactt ttgccaacag ggttatacgc tgtacacgtt cggagggggg 300
accaagctgg aaataaaacg tacggtggct gcaccatcgg tcttcattct cccgccatct 360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
agagaggcca aagtacagtg gaaggtgat aacgccctcc aatcgggtaa ctcccaggag 480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 260
<211> 503
<212> PRT
<213> Artificial Sequence

<220>
<223> First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb
2" Tri-Specific Binding Molecule

<400> 260

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

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
Page 148

35

40

45

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Ser Gly Gly
100 105 110

Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
115 120 125

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
130 135 140

Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
145 150 155 160

Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr
165 170 175

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

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

Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser
210 215 220

Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
225 230 235 240

Gly Cys Gly Gly Gly Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala
245 250 255

Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu
260 265 270

Lys Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
275 280 285

Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
290 295 300

Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
305 310 315 320

Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
325 330 335

Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
340 345 350

Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
355 360 365

Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
370 375 380

Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
385 390 395 400

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
405 410 415

Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
420 425 430

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
435 440 445

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
450 455 460

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
465 470 475 480

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
485 490 495

Leu Ser Leu Ser Pro Gly Lys
500

<210> 261
<211> 1509
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding First Polypeptide Chain of "gpA33 mAb 1 x
CD3 mAb 2 x EphA2 mAb 2" Tri-Specific Binding Molecule

<400> 261
gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
attacttgct ctgctaggtc ctcaatcagc ttcatgtact ggtatcagca gaagcccggc 120
aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccgggggt gccatctcgg 180
ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
gatgccgcta cctactattg ccagcagtgg agcagctatc ctctgacctt cggacagggg 300

actaaactgg aaatcaaggg tggaggatcc ggcggcggag gcgaggtgca gctggtggag 360
 tctgggggag gcttgggtcca gcctggaggg tccctgagac tctcctgtgc agcctctgga 420
 ttcaccttca gcacatacgc tatgaattgg gtccgccagg ctccagggaa ggggctggag 480
 tgggttggaa ggatcaggtc caagtacaac aattatgcaa cctactatgc cgactctgtg 540
 aagggtagat tcaccatctc aagagatgat tcaaagaact cactgtatct gcaaatgaac 600
 agcctgaaaa ccgaggacac ggccgtgtat tactgtgtga gacacggtaa cttcggcaat 660
 tcttacgtgt cttggtttgc ttattgggga caggggacac tgggtgactgt gtcttccgga 720
 ggatgtggcg gtggagaagt ggccgcactg gagaaagagg ttgctgcttt ggagaaggag 780
 gtcgctgcac ttgaaaagga ggtcgcagcc ctggagaaag gcggcgggga caaaactcac 840
 acatgcccac cgtgcccagc acctgaagcc gcggggggac cgtcagtctt cctcttcccc 900
 ccaaaacca aggacacct catgatctcc cggaccctg aggtcacatg cgtggtggtg 960
 gacgtgagcc acgaagacct tgaggtcaag ttcaactggt acgtggacgg cgtggaggtg 1020
 cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 1080
 gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggtctcc 1140
 aacaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 1200
 gaaccacagg tgtacacct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc 1260
 ctgtggtgcc tgggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat 1320
 gggcagccgg agaacaacta caagaccag cctcccgtgc tggactccga cggctccttc 1380
 ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 1440
 tgctccgtga tgcattgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct 1500
 ccgggtaaa 1509

<210> 262
 <211> 271
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 2" Tri-Specific Binding Molecule

<400> 262

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
85 90 95

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

Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
115 120 125

Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly
130 135 140

Tyr Thr Phe Thr Gly Ser Trp Met Asn Trp Val Arg Gln Ala Pro Gly
145 150 155 160

Gln Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr
165 170 175

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

Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe
210 215 220

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Cys
225 230 235 240

Gly Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys
245 250 255

Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 263

<211> 813

<212> DNA

<213> Artificial Sequence

<220>

<223> Polynucleotide Encoding Second Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x EphA2 mAb 2" Tri-Specific Binding Molecule

<400> 263

caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60

acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120

aagccaggac aggcaccaag gggcctgatc ggggggtacaa acaaaagggc tccttgacc 180

cctgcacggt tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca	240
caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc	300
gggggtggca caaaactgac tgtgctggga gggggtggat ccggcgagg tggacaggtc	360
cagctggtcc agagcggggc cgaagtcaaa aaacccggag caagcgtgaa ggtctcctgc	420
aaagcatcag gctatacatt tacaggcagc tggatgaact gggtgaggca ggctccagga	480
cagggactgg agtggatcgg gcgcatctac cctggagacg gcgaaactaa ctataatgga	540
aagttcaaag accgagtac catcacagcc gataagtcta ctagtaccgc ctacatggag	600
ctgagctccc tgcggtctga agataccgcc gtctactatt gcgctagaat ttacggaaac	660
aatgtctatt ttgacgtgtg ggggcaggga acaactgtga ctgtctcctc cggaggatgt	720
ggcggtgga aagtggccgc actgaaggag aaagttgctg ctttgaaaga gaaggtcgcc	780
gcacttaagg aaaaggtcgc agccctgaaa gag	813

<210> 264
 <211> 448
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Third Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 2" Tri-Specific Binding Molecule

<400> 264

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

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

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

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

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

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

Ala Arg Glu Leu Gly Pro Tyr Tyr Phe Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

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

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

Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 145 150 155 160
 Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
 165 170 175
 Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser
 180 185 190
 Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
 195 200 205
 Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys Thr
 210 215 220
 His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser
 225 230 235 240
 Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
 245 250 255
 Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
 260 265 270
 Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
 275 280 285
 Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
 290 295 300
 Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
 305 310 315 320
 Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
 325 330 335
 Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
 340 345 350
 Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser Cys
 355 360 365
 Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
 370 375 380
 Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
 385 390 395 400
 Ser Asp Gly Ser Phe Phe Leu Val Ser Lys Leu Thr Val Asp Lys Ser
 405 410 415

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
420 425 430

Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 265
<211> 1344
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 2" Tri-Specific Binding Molecule

<400> 265
cagatccagt tggatgcagtc tggacctgag ctgaagaagc ctggagagac agtcaagatc 60
tcctgcaagg cttctgggtt taccttcaca aactatggaa tgaactgggt gaagcaggct 120
ccaggaaagg gtttaaagtg gatgggctgg ataaacacct atattggaga gccgacatat 180
gctgatgact tcaagggacg gtttgtcttc tctttggaaa cctctgccag cactgcctat 240
ttgcagatca acaacctcaa aaatgaggac atggccacat atttctgtgc aagagaactg 300
ggaccatact actttgacta ctggggccaa ggcaccactc tcacagtctc ctccgcctcc 360
accaagggcc catcggctct ccccttgga cctcctcca agagcacctc tgggggcaca 420
gcggccctgg gctgcctggt caaggactac ttcccgaac cggtgacggt gtcgtggaac 480
tcaggcgccc tgaccagcgg cgtgcacacc ttcccggtg tcctacagtc ctcaggactc 540
tactccctca gcagcgtggt gaccgtgccc tccagcagct tgggcacca gacctacatc 600
tgcaacgtga atcacaagcc cagcaacacc aaggtggaca agagagttga gcccaaattc 660
tgtgacaaaa ctcacacatg cccaccgtgc ccagcacctg aagccgcggg gggaccgtca 720
gtcttcctct tcccccaaa acccaaggac accctcatga tctcccggac ccctgaggtc 780
acatgcgtgg tggatggacgt gagccacgaa gaccctgagg tcaagttcaa ctggtacgtg 840
gacggcgtgg aggtgcataa tgccaagaca aagccgcggg aggagcagta caacagcacg 900
taccgtgtgg tcagcgtcct caccgtcctg caccaggact ggctgaatgg caaggagtac 960
aagtgaagg tctccaacaa agccctcca gccccatcg agaaaaccat ctccaaagcc 1020
aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga ggagatgacc 1080
aagaaccagg tcagcctgag ttgcgcagtc aaaggcttct atcccagcga catcgccgtg 1140
gagtgaggaga gcaatgggca gccggagaac aactacaaga ccacgcctcc cgtgctggac 1200
tccgacggct cttcttcct cgtcagcaag ctcaccgtgg acaagagcag gtggcagcag 1260
gggaacgtct tctcatgctc cgtgatgcat gaggctctgc acaaccgcta cacgcagaag 1320
agcctctccc tgtctccggg taaa 1344

<210> 266
<211> 218
<212> PRT

<213> Artificial Sequence

<220>

<223> Polynucleotide Encoding Fourth Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x EphA2 mAb 2" Tri-Specific Binding Molecule

<400> 266

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

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

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

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
50 55 60

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

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

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

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

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

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

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

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

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

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

<210> 267

<211> 654

<212> DNA

<213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Fourth Polypeptide Chain of "gpA33 mAb 1
 x CD3 mAb 2 x EphA2 mAb 2" Tri-Specific Binding Molecule

<400> 267
 gatgttgatga tgacccaaac tccactctcc ctgcctgtca gtcttgagaga tcaagcctcc 60
 atctcttgca gatctagtca gaggcttgta cacagtagtg gaaacaccta ttacattgg 120
 tacctgcaga agccaggcca gtctccaaag ctctgatct acaaagtttc caaccgattt 180
 tctgggggtcc cagacaggtt cagtggcagt ggatcaggga cagatttcac actcaagatc 240
 agcagagtgg aggctgagga tctgggagtt tatttctgct ctcaaagtac acatgttccc 300
 acgttcggct cggggacaaa gttggaaata aaacgtacgg tggctgcacc atcggctcttc 360
 atcttcccgc catctgatga gcagttgaaa tctggaactg cctctgttgt gtgcctgctg 420
 aataacttct atcccagaga ggccaaagta cagtggaagg tggataacgc cctccaatcg 480
 ggtaactccc aggagagtgt cacagagcag gacagcaagg acagcaccta cagcctcagc 540
 agcaccctga cgctgagcaa agcagactac gagaaacaca aagtctacgc ctgcgaagtc 600
 acccatcagg gcctgagctc gcccgtcaca aagagcttca acaggggaga gtgt 654

<210> 268
 <211> 503
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb
 3" Tri-Specific Binding Molecule

<400> 268
 Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
 20 25 30
 Tyr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
 35 40 45
 Asp Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
 50 55 60
 Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Glu Ala Glu
 65 70 75 80
 Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
 85 90 95
 Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Ser Gly Gly
 100 105 110
 Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
 115 120 125

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
 130 135 140
 Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
 145 150 155 160
 Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr
 165 170 175
 Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys
 180 185 190
 Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala
 195 200 205
 Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser
 210 215 220
 Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
 225 230 235 240
 Gly Cys Gly Gly Gly Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala
 245 250 255
 Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu
 260 265 270
 Lys Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 275 280 285
 Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 290 295 300
 Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 305 310 315 320
 Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 325 330 335
 Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
 340 345 350
 Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 355 360 365
 Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
 370 375 380
 Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 385 390 395 400

Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
405 410 415

Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
420 425 430

Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
435 440 445

Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
450 455 460

Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
465 470 475 480

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
485 490 495

Leu Ser Leu Ser Pro Gly Lys
500

<210> 269
<211> 1509
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding First Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 3" Tri-Specific Binding Molecule

<400> 269
gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
attacttgct ctgctaggtc ctcaatcagc ttcatgtact ggtatcagca gaagcccggc 120
aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccggggg gccatctcgg 180
ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
gatgccgcta cctactattg ccagcagtg agcagctatc ctctgacctt cggacagggg 300
actaaactgg aaatcaaggg tggaggatcc ggcggcggag gcgagggtgca gctggtggag 360
tctggggggag gcttgggtcca gcctggaggg tccctgagac tctcctgtgc agcctctgga 420
ttcaccttca gcacatacgc tatgaattgg gtccgccagg ctccaggga ggggctggag 480
tgggttgga ggatcaggtc caagtacaac aattatgcaa cctactatgc cgactctgtg 540
aagggtagat tcaccatctc aagagatgat tcaaagaact cactgtatct gcaaatgaac 600
agcctgaaaa ccgaggacac ggccgtgtat tactgtgtga gacacggtaa cttcggcaat 660
tcttacgtgt cttggtttgc ttattgggga caggggacac tgggtactgt gtcttccgga 720
ggatgtggcg gtggagaagt ggccgcactg gagaaagagg ttgctgcttt ggagaaggag 780
gtcgtgcac ttgaaaagga ggtcgcagcc ctggagaaag gcggcgggga caaaactcac 840
acatgcccac cgtgcccagc acctgaagcc gcggggggac cgtcagtctt cctcttcccc 900

ccaaaaccca aggacaccct catgatctcc cggacccttg aggtcacatg cgtggtggtg 960
 gacgtgagcc acgaagaccc tgaggtcaag ttcaactggt acgtggacgg cgtggaggtg 1020
 cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 1080
 gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagtg caaggtctcc 1140
 aacaaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 1200
 gaaccacagg tgtacaccct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc 1260
 ctgtggtgcc tgggtcaaagg cttctatccc agcgacatcg ccgtggagtg ggagagcaat 1320
 gggcagccgg agaacaacta caagaccacg cctcccgtgc tggactccga cggctccttc 1380
 ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 1440
 tgctccgtga tgcatgaggc tctgcacaac cactacacgc agaagagcct ctccctgtct 1500
 ccgggtaaa 1509

<210> 270
 <211> 271
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 3" Tri-Specific Binding Molecule

<400> 270

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95

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

Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu
 115 120 125

Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly
 130 135 140

Tyr Thr Phe Thr Gly Ser Trp Met Asn Trp Val Arg Gln Ala Pro Gly
145 150 155 160

Gln Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr
165 170 175

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

Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe
210 215 220

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Gly Gly Cys
225 230 235 240

Gly Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys
245 250 255

Glu Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 271
<211> 813
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Second Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x EphA2 mAb 3" Tri-Specific Binding Molecule

<400> 271
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
aagccaggac aggcaccaag gggcctgatc ggggggtacaa acaaaagggc tccctggacc 180
cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
caggccgagg acgaagccga ttactattgt gctctgtggg atagcaatct gtgggtgttc 300
gggggtggca caaaactgac tgtgctggga ggggggtggat ccggcgaggagg tggacaggtc 360
cagctggtcc agagcggggc cgaagtcaaa aaacccggag caagcgtgaa ggtctcctgc 420
aaagcatcag gctatacatt tacaggcagc tggatgaact gggtgaggca ggctccagga 480
cagggactgg agtggatcgg gcgcatctac cctggagacg gcgaaactaa ctataatgga 540
aagttcaaag accgagtgac catcacagcc gataagtcta ctagtaccgc ctacatggag 600
ctgagctccc tgcggtctga agataccgcc gtctactatt gcgctagaat ttacggaaac 660
aatgtctatt ttgacgtgtg ggggcaggga acaactgtga ctgtctcctc cggaggatgt 720
ggcgggtggaa aagtggccgc actgaaggag aaagttgctg ctttgaaaga gaaggtcgcc 780

gcacttaagg aaaaggtcgc agccctgaaa gag

813

<210> 272
<211> 448
<212> PRT
<213> Artificial Sequence

<220>
<223> Third Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 3" Tri-Specific Binding Molecule

<400> 272

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

Ser Leu Lys Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr Asp His
20 25 30

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

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

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

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

Thr Arg Asp Glu Ser Asp Arg Pro Phe Pro Tyr Trp Gly Gln Gly Thr
100 105 110

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

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

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

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

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

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

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

His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser
225 230 235 240

Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg
245 250 255

Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro
260 265 270

Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala
275 280 285

Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val
290 295 300

Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr
305 310 315 320

Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr
325 330 335

Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu
340 345 350

Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser Cys
355 360 365

Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser
370 375 380

Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp
385 390 395 400

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

Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala
420 425 430

Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
435 440 445

<210> 273
<211> 1344
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "gpA33 mAb 1 x
CD3 mAb 2 x EphA2 mAb 3" Tri-Specific Binding Molecule

<400> 273
gaagtgcagc tggtggagtc tgggggaggc tcagtgaagc ctggagggtc cctgaaactc 60

tcctgtgcag cctctggatt cactttcact gaccattaca tgtattgggt tcgccagact	120
ccggaaga ggctggagtg ggtcgcaacc attagtgatg gcggtagttt cacctcctat	180
ccagacagtg tgaagggcg attcaccatc tccagagaca ttgccaagaa caacctgtac	240
ctccaaatga gcagtctgaa gtctgaggac acagccatgt attactgtac aagagatgag	300
agcgataggc cgtttcctta ctggggccaa gggactcttg tctactgtctc ctccgcctcc	360
accaagggcc catcgggtctt ccccctggca ccctcctcca agagcacctc tgggggcaca	420
gcggccctgg gctgcctggt caaggactac ttccccgaac cggtgacggt gtcgtggaac	480
tcaggcgccc tgaccagcgg cgtgcacacc ttcccggtg tcctacagtc ctcaggactc	540
tactccctca gcagcgtggt gaccgtgccc tccagcagct tgggcacca gacctacatc	600
tgcaacgtga atcacaagcc cagcaacacc aaggtggaca agagagttga gcccaaattct	660
tgtgacaaaa ctcacacatg cccaccgtgc ccagcacctg aagccgcggg gggaccgtca	720
gtcttcctct tcccccaaa acccaaggac accctcatga tctcccgga cctgaggtc	780
acatgcgtgg tgggtggacgt gagccacgaa gaccctgagg tcaagttcaa ctggtacgtg	840
gacggcgtgg aggtgcataa tgccaagaca aagccgcggg aggagcagta caacagcacg	900
taccgtgtgg tcagcgtcct caccgtcctg caccaggact ggctgaatgg caaggagtac	960
aagtgcagg tctccaacaa agccctcca gccccatcg agaaaaccat ctccaaagcc	1020
aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga ggagatgacc	1080
aagaaccagg tcagcctgag ttgcgcagtc aaaggcttct atcccagcga catcgccgtg	1140
gagtgggaga gcaatgggca gccggagaac aactacaaga ccacgcctcc cgtgctggac	1200
tccgacggct ctttcttct cgtcagcaag ctcaccgtgg acaagagcag gtggcagcag	1260
gggaacgtct tctcatgctc cgtgatgcat gaggtcttgc acaaccgcta cagcagaag	1320
agcctctccc tgtctccggg taaa	1344

<210> 274

<211> 214

<212> PRT

<213> Artificial Sequence

<220>

<223> Fourth Polypeptide Chain of "gpA33 mAb 1 x CD3 mAb 2 x EphA2 mAb 3" Tri-Specific Binding Molecule

<400> 274

Asp	Ile	Val	Leu	Thr	Gln	Ser	His	Arg	Ser	Met	Ser	Thr	Ser	Val	Gly
1				5					10					15	

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

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

Phe	Trp	Ala	Ser	Thr	Arg	His	Ala	Gly	Val	Pro	Asp	Arg	Phe	Thr	Gly
-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----

50

55

60

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

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

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

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

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

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

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

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

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

Phe Asn Arg Gly Glu Cys
210

<210> 275
<211> 642
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Fourth Polypeptide Chain of "gpA33 mAb 1
x CD3 mAb 2 x EphA2 mAb 3" Tri-Specific Binding Molecule

<400> 275
gacattgtgc tgaccagtc tcacagatcc atgtccacat cagtaggaga cagggtcaac 60
atcacctgca aggccagtca ggatgtgact actgctgtag cctggatatca acaaaaacca 120
gggcaatctc ctaaattact gattttctgg gcatccaccc ggcacgctgg agtccttgat 180
cgttcacag gcagtggatc tgggacagat tttactctca ccatcagcag tgtgcaggct 240
ggagacctgg cactttatta ctgtcaacaa cattatagca caccgtacac attcggaggg 300
gggaccaagc tggaataaaa acgtacggtg gctgcacat cggtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaagggtg gataacgccc tccaatcggg taactcccag 480

gagagtgtca cagagcagga cagcaaggac agcacctaca gcctcagcag caccctgacg 540
 ctgagcaaag cagactacga gaaacacaaa gtctacgcct gcgaagtcac ccatcagggc 600
 ctgagctcgc ccgtcacaaa gagcttcaac aggggagagt gt 642

<210> 276
 <211> 503
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> First Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 276

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

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

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

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

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

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

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

Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
 115 120 125

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
 130 135 140

Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
 145 150 155 160

Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr
 165 170 175

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

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

Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val Ser
 210 215 220
 Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly
 225 230 235 240
 Gly Cys Gly Gly Gly Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala
 245 250 255
 Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu
 260 265 270
 Lys Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala Pro
 275 280 285
 Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys
 290 295 300
 Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val
 305 310 315 320
 Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val Asp
 325 330 335
 Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr
 340 345 350
 Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp
 355 360 365
 Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu
 370 375 380
 Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg
 385 390 395 400
 Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr Lys
 405 410 415
 Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp
 420 425 430
 Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys
 435 440 445
 Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser
 450 455 460
 Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe Ser
 465 470 475 480

Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser
485 490 495

Leu Ser Leu Ser Pro Gly Lys
500

<210> 277
<211> 1509
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding First Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 277
gatatccaga tgacacagac tacatcctcc ctgtctgcct ctctgggaga cagaatcacc 60
atcagttgca gggcaagtca ggacattagc aattatttaa actggtatca gcagaaacca 120
gatggaactg ttaaactcct gatctactac acatcaagat tacactcagg agtcccatca 180
aggttcagtg gcagtgggtc tggaacagat tattctctca ccattagcaa cctggagcaa 240
gaagatattg ccacttactt ttgccaacag ggttatacgc tgtacacggt cgaggggggg 300
accaagctgg aaataaaaagg tggaggatcc ggcggcggag gcgaggtgca gctggtggag 360
tctggggggag gcttgggtcca gcctggaggg tccctgagac tctcctgtgc agcctctgga 420
ttcaccttca gcacatacgc tatgaattgg gtccgccagg ctccagggaa ggggctggag 480
tgggttgga ggcaggtc caagtacaac aattatgcaa cctactatgc cgactctgtg 540
aagggtagat tcaccatctc aagagatgat tcaaagaact cactgtatct gcaaatgaac 600
agcctgaaaa ccgaggacac ggccgtgtat tactgtgtga gacacggtaa cttcggcaat 660
tcttacgtgt cttgggtttgc ttattgggga caggggacac tgggtgactgt gtcttccgga 720
ggatgtggcg gtggagaagt ggccgcactg gagaaagagg ttgctgcttt ggagaaggag 780
gtcgtgcac ttgaaaagga ggtcgcagcc ctggagaaag gcggcgggga caaaactcac 840
acatgcccac cgtgcccagc acctgaagcc gcggggggag cgtcagtcct cctcttcccc 900
ccaaaaccca aggacaccct catgatctcc cggaccctg aggtcacatg cgtggtggtg 960
gacgtgagcc acgaagacc tgaggtcaag ttcaactggt acgtggacgg cgtggaggtg 1020
cataatgcca agacaaagcc gcgggaggag cagtacaaca gcacgtaccg tgtggtcagc 1080
gtcctcaccg tcctgcacca ggactggctg aatggcaagg agtacaagt caaggtctcc 1140
aaciaagccc tcccagcccc catcgagaaa accatctcca aagccaaagg gcagccccga 1200
gaaccacagg tgtacaccct gccccatcc cgggaggaga tgaccaagaa ccaggtcagc 1260
ctgtggtgcc tgggtcaaagg cttctatccc agcgacatcg ccgtggagt ggagagcaat 1320
gggcagccgg agaacaacta caagaccag cctcccgtgc tggactccga cggctccttc 1380
ttcctctaca gcaagctcac cgtggacaag agcaggtggc agcaggggaa cgtcttctca 1440
tgctccgtga tgcattgagg tctgcacaac cactacacgc agaagagcct ctccctgtct 1500
ccgggtaaa 1509

<210> 278
 <211> 270
 <212> PRT
 <213> Artificial Sequence

 <220>
 <223> Second Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

 <400> 278
 Gln Ala Val Val Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly
 1 5 10 15
 Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30
 Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45
 Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60
 Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80
 Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 85 90 95
 Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Gly
 100 105 110
 Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Lys Glu Ser Gly Pro Gly
 115 120 125
 Leu Val Ala Pro Ser Gln Ser Leu Ser Ile Thr Cys Thr Val Ser Gly
 130 135 140
 Phe Ser Leu Ser Arg Tyr Ser Val His Trp Val Arg Gln Pro Pro Gly
 145 150 155 160
 Lys Gly Leu Glu Trp Leu Gly Met Ile Trp Gly Gly Gly Ser Thr Asp
 165 170 175
 Tyr Asn Ser Ala Leu Lys Ser Arg Leu Ser Ile Ser Lys Asp Asn Ser
 180 185 190
 Lys Ser Gln Val Phe Leu Lys Met Asn Ser Leu Gln Thr Asp Asp Thr
 195 200 205
 Ala Met Tyr Tyr Cys Ala Arg Lys His Gly Asn Tyr Tyr Thr Met Asp
 210 215 220

Tyr Trp Gly Gln Gly Thr Ser Val Thr Val Ser Ser Gly Gly Cys Gly
225 230 235 240

Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
245 250 255

Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 279
<211> 810
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Second Polypeptide Chain of "EphA2 mAb 1
x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 279
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
aagccaggac aggaccaag gggcctgatc ggggggtacaa acaaaagggc tccctggacc 180
cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
gggggtggca caaaactgac tgtgctggga ggggggtggat ccggcggagg tggacaggtg 360
cagctgaagg agtcaggacc tggcctggtg gcaccctcac agagcctgtc catcacatgc 420
actgtctctg ggttctcatt atccagatat agtgtacact gggttcgcca gcctccagga 480
aagggctctg agtggctggg aatgatattg ggtgggtggaa gcacagacta taattcagct 540
ctcaaattcca gactgagtat cagcaaggac aactccaaga gccaagtttt cttaaaaatg 600
aacagtctgc aaactgatga cacagccatg tactactgtg ccagaaaaca tggtaactac 660
tatactatgg actactgggg tcaaggaacc tcagtcaccg tctcctccgg aggatgtggc 720
gggtggaaaag tggccgcact gaaggagaaa gttgctgctt tgaaagagaa ggtcgccgca 780
cttaaggaaa aggtcgcagc cctgaaagag 810

<210> 280
<211> 449
<212> PRT
<213> Artificial Sequence

<220>
<223> Third Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x gpA33 mAb
1" Tri-Specific Binding Molecule

<400> 280
Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
1 5 10 15

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

Trp Met Asn₃₅ Trp Val Arg Gln₄₀ Ala₄₀ Pro Gly Gln Gly₄₅ Leu Glu Trp Ile
 Gly Arg Ile Tyr Pro Gly Asp₅₅ Gly Glu Thr Asn Tyr₆₀ Asn Gly Lys Phe
 Lys Asp Arg Val Thr Ile₇₀ Thr Ala Asp Lys Ser₇₅ Thr Ser Thr Ala Tyr₈₀
 Met Glu Leu Ser Ser₈₅ Leu Arg Ser Glu Asp₉₀ Thr Ala Val Tyr Tyr₉₅ Cys
 Ala Arg Ile Tyr₁₀₀ Gly Asn Asn Val Tyr₁₀₅ Phe Asp Val Trp Gly₁₁₀ Gln Gly
 Thr Thr Val₁₁₅ Thr Val Ser Ser Ala₁₂₀ Ser Thr Lys Gly Pro₁₂₅ Ser Val Phe
 Pro Leu₁₃₀ Ala Pro Ser Ser Lys₁₃₅ Ser Thr Ser Gly Gly₁₄₀ Thr Ala Ala Leu
 Gly Cys Leu Val Lys Asp₁₅₀ Tyr Phe Pro Glu Pro₁₅₅ Val Thr Val Ser Trp₁₆₀
 Asn Ser Gly Ala Leu₁₆₅ Thr Ser Gly Val His₁₇₀ Thr Phe Pro Ala Val₁₇₅ Leu
 Gln Ser Ser Gly₁₈₀ Leu Tyr Ser Leu Ser₁₈₅ Ser Val Val Thr Val₁₉₀ Pro Ser
 Ser Ser Leu₁₉₅ Gly Thr Gln Thr Tyr₂₀₀ Ile Cys Asn Val Asn₂₀₅ His Lys Pro
 Ser Asn₂₁₀ Thr Lys Val Asp Lys₂₁₅ Arg Val Glu Pro Lys₂₂₀ Ser Cys Asp Lys
 Thr His Thr Cys Pro Pro₂₃₀ Cys Pro Ala Pro Glu₂₃₅ Ala Ala Gly Gly Pro₂₄₀
 Ser Val Phe Leu Phe₂₄₅ Pro Pro Lys Pro Lys₂₅₀ Asp Thr Leu Met Ile₂₅₅ Ser
 Arg Thr Pro Glu₂₆₀ Val Thr Cys Val Val₂₆₅ Val Asp Val Ser His₂₇₀ Glu Asp
 Pro Glu Val₂₇₅ Lys Phe Asn Trp Tyr₂₈₀ Val Asp Gly Val Glu₂₈₅ Val His Asn
 Ala Lys₂₉₀ Thr Lys Pro Arg Glu₂₉₅ Glu Gln Tyr Asn Ser₃₀₀ Thr Tyr Arg Val

Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
305 310 315 320

Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
325 330 335

Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
340 345 350

Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser
355 360 365

Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
370 375 380

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
385 390 395 400

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

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
420 425 430

Ala Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
435 440 445

Lys

<210> 281
<211> 1347
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "EphA2 mAb 1 x
CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 281
caggtccagc tgggtccagag cggggccgaa gtcaaaaaac ccggagcaag cgtgaaggct 60
tcctgcaaag catcaggcta tacatttaca ggcagctgga tgaactgggt gaggcaggct 120
ccaggacagg gactggagtg gatcgggctg atctaccctg gagacggcga aactaactat 180
aatggaaagt tcaaagaccg agtgaccatc acagccgata agtctactag taccgcctac 240
atggagctga gtcctctgcg gtctgaagat accgccgtct actattgctg tagaatttac 300
ggaaacaatg tctattttga cgtgtggggg cagggaacaa ctgtgactgt ctctccgcc 360
tccaccaagg gcccatcggc cttccccctg gcaccctcct ccaagagcac ctctgggggc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ccctgaccag cggcgtgcac accttcccg ctgtcctaca gtcctcagga 540
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca gcttgggcac ccagacctac 600

atctgcaacg tgaatcacia gccagcaac accaaggtgg acaagagagt tgagcccaaa 660
 tcttgtgaca aaactcacac atgcccaccg tgcccagcac ctgaagccgc ggggggaccg 720
 tcagtcttcc tcttcccccc aaaacccaag gacaccctca tgatctcccg gacccttgag 780
 gtcacatgcg tgggtggtgga cgtgagccac gaagaccctg aggtcaagtt caactggtac 840
 gtggacggcg tggaggtgca taatgccaag acaaagccgc gggaggagca gtacaacagc 900
 acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actggctgaa tggcaaggag 960
 tacaagtgca aggtctccaa caaagccctc ccagccccc a tcgagaaaac catctccaaa 1020
 gccaaagggc agccccgaga accacaggtg tacaccctgc ccccatcccg ggaggagatg 1080
 accaagaacc aggtcagcct gagttgcgca gtcaaaggct tctatcccag cgacatcgcc 1140
 gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tcccgctgctg 1200
 gactccgacg gctccttctt cctcgtcagc aagctcaccg tggacaagag caggtggcag 1260
 caggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaaccg ctacacgcag 1320
 aagagcctct ccctgtctcc gggtaaa 1347

<210> 282
 <211> 213
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Fourth Polypeptide Chain of "EphA2 mAb 1 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 282

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

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
 20 25 30

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

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
 85 90 95

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

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

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

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

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

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

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

Asn Arg Gly Glu Cys
 210

<210> 283
 <211> 639
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Fourth Polypeptide Chain of "EphA2 mAb 1
 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 283
 gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
 attacttgct ctgctaggtc ctcaatcagc ttcatgtact ggtatcagca gaagcccggc 120
 aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccggggg gccatctcgg 180
 ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
 gatgccgcta cctactattg ccagcagtg agcagctatc ctctgacctt cggacagggg 300
 actaaactgg aaatcaagcg tacgggtggc gcaccatcgg tcttcatctt cccgccatct 360
 gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
 agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
 agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
 agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
 agctcgcccc tcacaaagag cttcaacagg ggagagtgt 639

<210> 284
 <211> 508
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> First Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x gpA33 mAb
 1" Tri-Specific Binding Molecule

<400> 284

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

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

Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe
290 295 300

Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val
305 310 315 320

Thr Cys Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe
325 330 335

Asn Trp Tyr Val Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro
340 345 350

Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr
355 360 365

Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val
370 375 380

Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala
385 390 395 400

Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg
405 410 415

Glu Glu Met Thr Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly
420 425 430

Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro
435 440 445

Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser
450 455 460

Phe Phe Leu Tyr Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln
465 470 475 480

Gly Asn Val Phe Ser Cys Ser Val Met His Glu Ala Leu His Asn His
485 490 495

Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly Lys
500 505

<210> 285
<211> 1524
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding First Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

```

<400> 285
gatgttgtga tgacccaaac tccactctcc ctgcctgtca gtcttggaga tcaagcctcc      60
atctcttgca gatctagtca gagccttgta cacagtagtg gaaacaccta ttacattgg      120
tacctgcaga agccaggcca gtctccaaag ctctgatctt acaaagtttc caaccgattt      180
tctgggggtcc cagacagggt cagtggcagt ggatcagggg cagatttcac actcaagatc      240
agcagagtgg aggctgagga tctgggagtt tatttctgct ctcaaagtac acatgttccc      300
acgttcggct cggggacaaa gttggaaata aaaggtggag gatccggcgg cggaggcgag      360
gtgcagctgg tggagtctgg gggaggcttg gtccagcctg gagggtcctt gagactctcc      420
tgtgcagcct ctggattcac cttcagcaca tacgctatga attgggtccg ccagggtcca      480
gggaaggggc tggagtgggt tggaaggatc aggtccaagt acaacaatta tgcaacctac      540
tatgccgact ctgtgaaggg tagattcacc atctcaagag atgattcaaa gaactcactg      600
tatctgcaaa tgaacagcct gaaaaccgag gacacggccg tgtattactg tgtgagacac      660
ggtaacttcg gcaattctta cgtgtcttgg tttgcttatt ggggacaggg gacactggtg      720
actgtgtctt ccggaggatg tggcggtgga gaagtggccg cactggagaa agaggttgct      780
gctttggaga aggaggtcgc tgcacttgaa aaggaggtcg cagccctgga gaaaggcggc      840
ggggacaaaa ctacacatg cccaccgtgc ccagcacctg aagccgcggg gggaccgtca      900
gtcttcctct tcccccaaa acccaaggac accctcatga tctcccggac ccctgaggtc      960
acatgcgtgg tgggtggacgt gagccacgaa gaccctgagg tcaagttcaa ctggtacgtg     1020
gacggcgtgg aggtgcataa tgccaagaca aagccgcggg aggagcagta caacagcacg     1080
taccgtgtgg tcagcgtcct caccgtcctg caccaggact ggctgaatgg caaggagtac     1140
aagtgcagg tctccaacaa agccctccca gccccatcg agaaaaccat ctccaaagcc     1200
aaagggcagc cccgagaacc acaggtgtac accctgcccc catcccggga ggagatgacc     1260
aagaaccagg tcagcctgtg gtgcctggtc aaaggcttct atcccagcga catcgccgtg     1320
gagtgggaga gcaatgggca gccggagaac aactacaaga ccacgcctcc cgtgctggac     1380
tccgacggct ctttcttct ctacagcaag ctcaccgtgg acaagagcag gtggcagcag     1440
gggaacgtct tctcatgctc cgtgatgcat gaggtctctg acaaccacta cacgcagaag     1500
agcctctccc tgtctccggg taaa                                           1524

```

<210> 286

<211> 270

<212> PRT

<213> Artificial Sequence

<220>

<223> Second Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 286

```

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

```

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

<210> 287
 <211> 810
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Second Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 287
 caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
 acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
 aagccaggac aggcaccaag gggcctgatc ggggggtacaa aaaaaagggc tccctggacc 180
 cctgcacggg tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
 caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
 ggggggtggc caaaactgac tgtgctggga ggggggtggat ccggcgagg tggacagatc 360
 cagttggtgc agtctggacc tgagctgaag aagcctggag agacagtcaa gatctcctgc 420
 aaggcttctg ggtttacctt cacaaactat ggaatgaact ggggtgaagca ggctccagga 480
 aagggtttta agtggatggg ctggataaac acctatatgt gagagccgac atatgctgat 540
 gacttcaagg gacggtttgt cttctctttg gaaacctctg ccagcactgc ctatttgcag 600
 atcaacaacc tcaaaaatga ggacatggcc acatatttct gtgcaagaga actgggacca 660
 tactactttg actactgggg ccaaggcacc actctcacag tctcctccgg aggatgtggc 720
 ggtggaaaag tggccgcact gaaggagaaa gttgctgctt tgaaagagaa ggctcgccga 780
 ctaaggaaa aggtcgagc cctgaaagag 810

<210> 288
 <211> 449
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Third Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 288
 Gln Val Gln Leu Val Gln Ser Gly Ala Glu Val Lys Lys Pro Gly Ala
 1 5 10 15
 Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr Gly Ser
 20 25 30
 Trp Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Ile
 35 40 45
 Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr Asn Tyr Asn Gly Lys Phe
 50 55 60
 Lys Asp Arg Val Thr Ile Thr Ala Asp Lys Ser Thr Ser Thr Ala Tyr
 65 70 75 80
 Met Glu Leu Ser Ser Leu Arg Ser Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95

Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe Asp Val Trp Gly Gln Gly
 100 105 110
 Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe
 115 120 125
 Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly Gly Thr Ala Ala Leu
 130 135 140
 Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp
 145 150 155 160
 Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
 165 170 175
 Gln Ser Ser Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser
 180 185 190
 Ser Ser Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro
 195 200 205
 Ser Asn Thr Lys Val Asp Lys Arg Val Glu Pro Lys Ser Cys Asp Lys
 210 215 220
 Thr His Thr Cys Pro Pro Cys Pro Ala Pro Glu Ala Ala Gly Gly Pro
 225 230 235 240
 Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr Leu Met Ile Ser
 245 250 255
 Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val Ser His Glu Asp
 260 265 270
 Pro Glu Val Lys Phe Asn Trp Tyr Val Asp Gly Val Glu Val His Asn
 275 280 285
 Ala Lys Thr Lys Pro Arg Glu Glu Gln Tyr Asn Ser Thr Tyr Arg Val
 290 295 300
 Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu Asn Gly Lys Glu
 305 310 315 320
 Tyr Lys Cys Lys Val Ser Asn Lys Ala Leu Pro Ala Pro Ile Glu Lys
 325 330 335
 Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro Gln Val Tyr Thr
 340 345 350
 Leu Pro Pro Ser Arg Glu Glu Met Thr Lys Asn Gln Val Ser Leu Ser
 355 360 365
 Cys Ala Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala Val Glu Trp Glu
 Page 180

370

375

380

Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr Pro Pro Val Leu
 385 390 395 400

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

Ser Arg Trp Gln Gln Gly Asn Val Phe Ser Cys Ser Val Met His Glu
 420 425 430

Ala Leu His Asn Arg Tyr Thr Gln Lys Ser Leu Ser Leu Ser Pro Gly
 435 440 445

Lys

<210> 289
 <211> 1347
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding Third Polypeptide Chain of "EphA2 mAb 2 x
 CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 289
 cagggtccagc tgggtccagag cgggggccgaa gtcaaaaaaac ccggagcaag cgtgaagggtc 60
 tcctgcaaag catcaggcta tacatttaca ggcagctgga tgaactgggt gaggcaggct 120
 ccaggacagg gactggagtg gatcgggagc atctaccctg gagacggcga aactaactat 180
 aatggaaagt tcaaagaccg agtgaccatc acagccgata agtctactag taccgcctac 240
 atggagctga gctccctgag gtctgaagat accgccgtct actattgagc tagaatttac 300
 ggaaacaatg tctattttga cgtgtggggg cagggaacaa ctgtgactgt ctctccgcc 360
 tccaccaagg gcccatcggg cttccccctg gcaccctcct ccaagagcac ctctggggggc 420
 acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccgggtgac ggtgtcgtgg 480
 aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540
 ctctactccc tcagcagcgt ggtgaccgtg ccctccagca gcttggggcac ccagacctac 600
 atctgcaacg tgaatcacia gccagcaac accaagggtg acaagagagt tgagcccaaa 660
 tcttgtgaca aaactcacac atgcccaccg tgcccagcac ctgaagccgc ggggggaccg 720
 tcagtcttcc tcttcccccc aaaacccaag gacaccctca tgatctcccg gaccctgag 780
 gtcacatgag tgggtgggtgga cgtgagccac gaagaccctg aggtcaagtt caactggtac 840
 gtggacggcg tggaggtgca taatgccaag acaaagccgc gggaggagca gtacaacagc 900
 acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actgggtgaa tggcaaggag 960
 tacaagtgca aggtctccaa caaagccctc ccagccccca tcgagaaaac catctccaaa 1020
 gccaaagggc agccccgaga accacaggtg tacaccctgc ccccatcccg ggaggagatg 1080

accaagaacc aggtcagcct gagttgcgca gtcaaaggct tctatcccag cgacatcgcc 1140
 gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tcccgtgctg 1200
 gactccgacg gctccttctt cctcgtcagc aagctcaccg tggacaagag caggtggcag 1260
 caggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaaccg ctacacgcag 1320
 aagagcctct ccctgtctcc gggtaaa 1347

<210> 290
 <211> 213
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Fourth Polypeptide Chain of "EphA2 mAb 2 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 290

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

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
 20 25 30

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

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
 85 90 95

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

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

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

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

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

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

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

Asn Arg Gly Glu Cys
210

<210> 291
<211> 639
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Fourth Polypeptide Chain of "EphA2 mAb 2
x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 291
gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
attacttgct ctgctaggtc ctcaatcagc ttcatgtact ggtatcagca gaagcccggc 120
aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccggggg gccatctcgg 180
ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
gatgccgcta cctactattg ccagcagtg agcagctatc ctctgacctt cggacagggg 300
actaaactgg aaatcaagcg tacggtggct gcaccatcgg tcttcatctt cccgccatct 360
gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
agagaggcca aagtacagtg gaagggtgat aacgccctcc aatcgggtaa ctcccaggag 480
agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcaccca tcagggcctg 600
agctcgcccg tcacaaagag cttcaacagg ggagagtgt 639

<210> 292
<211> 504
<212> PRT
<213> Artificial Sequence

<220>
<223> First Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x gpA33 mAb
1" Tri-Specific Binding Molecule

<400> 292

Asp Ile Val Leu Thr Gln Ser His Arg Ser Met Ser Thr Ser Val Gly
1 5 10 15

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

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

Phe Trp Ala Ser Thr Arg His Ala Gly Val Pro Asp Arg Phe Thr Gly
50 55 60

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

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

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

Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln
115 120 125

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

Ser Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu
145 150 155 160

Glu Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr
165 170 175

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

Lys Asn Ser Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr
195 200 205

Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe Gly Asn Ser Tyr Val
210 215 220

Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
225 230 235 240

Gly Gly Cys Gly Gly Gly Glu Val Ala Ala Leu Glu Lys Glu Val Ala
245 250 255

Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu
260 265 270

Glu Lys Gly Gly Gly Asp Lys Thr His Thr Cys Pro Pro Cys Pro Ala
275 280 285

Pro Glu Ala Ala Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro
290 295 300

Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val
305 310 315 320

Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp Tyr Val
325 330 335

Asp Gly Val Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln
Page 184

340 345 350
 Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln
 355 360 365
 Asp Trp Leu Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Ala
 370 375 380
 Leu Pro Ala Pro Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro
 385 390 395 400
 Arg Glu Pro Gln Val Tyr Thr Leu Pro Pro Ser Arg Glu Glu Met Thr
 405 410 415
 Lys Asn Gln Val Ser Leu Trp Cys Leu Val Lys Gly Phe Tyr Pro Ser
 420 425 430
 Asp Ile Ala Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr
 435 440 445
 Lys Thr Thr Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr
 450 455 460
 Ser Lys Leu Thr Val Asp Lys Ser Arg Trp Gln Gln Gly Asn Val Phe
 465 470 475 480
 Ser Cys Ser Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys
 485 490 495
 Ser Leu Ser Leu Ser Pro Gly Lys
 500

<210> 293
 <211> 1512
 <212> DNA
 <213> Artificial Sequence

<220>
 <223> Polynucleotide Encoding First Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 293
 gacattgtgc tgaccagtc tcacagatcc atgtccacat cagtaggaga caggggtcaac 60
 atcacctgca aggccagtca ggatgtgact actgctgtag cctggatatca acaaaaacca 120
 gggcaatctc ctaaattact gattttcttg gcatccaccc ggcacgctgg agtccttgat 180
 cgcttcacag gcagtggatc tgggacagat ttactctca ccatcagcag tgtgcaggct 240
 ggagacctgg cactttatta ctgtcaacaa cattatagca caccgtacac attcggaggg 300
 gggaccaagc tggaaataaa aggtggagga tccggcggcg gaggcgaggt gcagctgggtg 360
 gagtctgggg gaggcttggg ccagcctgga gggtcctga gactctctg tgcagcctct 420
 ggattcacct tcagcacata cgctatgaat tgggtccgcc aggctccagg gaaggggctg 480

gagtggggtt gaaggatcag gtccaagtac aacaattatg caacctacta tgccgactct 540
 gtgaagggtta gattcaccat ctcaagagat gattcaaaga actcactgta tctgcaaagt 600
 aacagcctga aaaccgagga cacggccgtg tattactgtg tgagacacgg taacttcggc 660
 aattcttacg tgtcttggtt tgcttattgg ggacagggga cactggtgac tgtgtcttcc 720
 ggaggatgtg gcggtggaga agtggccgca ctggagaaag aggttgctgc tttggagaag 780
 gaggtcgctg cacttgaaaa ggaggtcgca gccctggaga aaggcggcgg ggacaaaact 840
 cacacatgcc caccgtgccc agcacctgaa gccgcggggg gaccgtcagt cttcctcttc 900
 ccccaaaaac ccaaggacac cctcatgatc tcccggaccc ctgaggtcac atgcgtggtg 960
 gtggacgtga gccacgaaga ccctgaggtc aagttcaact ggtacgtgga cggcgtggag 1020
 gtgcataatg ccaagacaaa gccgcggggag gagcagtaca acagcacgta ccgtgtggtc 1080
 agcgtcctca ccgtcctgca ccaggactgg ctgaatggca aggagtacaa gtgcaaggtc 1140
 tccaacaaag ccctcccagc ccccatcgag aaaaccatct ccaaagccaa agggcagccc 1200
 cgagaaccac aggtgtacac cctgccccca tcccgggagg agatgaccaa gaaccaggtc 1260
 agcctgtggt gcctgggtcaa aggcttctat cccagcgaca tcgccgtgga gtgggagagc 1320
 aatgggcagc cggagaacaa ctacaagacc acgcctcccg tgctggactc cgacggctcc 1380
 ttcttcctct acagcaagct caccgtggac aagagcaggt ggcagcaggg gaacgtcttc 1440
 tcatgtccg tgatgcatga ggctctgcac aaccactaca cgagaagag cctctccctg 1500
 tctccgggta aa 1512

<210> 294
 <211> 270
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> Second Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 294

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
 20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
 35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
 50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
 65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
 Page 186

85

90

95

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

Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly
115 120 125

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

Phe Thr Phe Thr Asp His Tyr Met Tyr Trp Val Arg Gln Thr Pro Glu
145 150 155 160

Lys Arg Leu Glu Trp Val Ala Thr Ile Ser Asp Gly Gly Ser Phe Thr
165 170 175

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

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

Thr Ala Met Tyr Tyr Cys Thr Arg Asp Glu Ser Asp Arg Pro Phe Pro
210 215 220

Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Gly Gly Cys Gly
225 230 235 240

Gly Gly Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
245 250 255

Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 295
<211> 810
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Second Polypeptide Chain of "EphA2 mAb 3
x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 295
caggctgtgg tgactcagga gccttcactg accgtgtccc caggcggaac tgtgaccctg 60
acatgcagat ccagcacagg cgcagtgacc acatctaact acgccaattg ggtgcagcag 120
aagccaggac aggaccaag gggcctgatc ggggggtacaa acaaaagggc tccctggacc 180
cctgcacggt tttctggaag tctgctgggc ggaaaggccg ctctgactat taccggggca 240
caggccgagg acgaagccga ttactattgt gctctgtggt atagcaatct gtgggtgttc 300
gggggtggca caaaactgac tgtgctggga ggggggtggat ccggcgagg tggagaagtg 360

cagctggtgg agtctggggg aggctcagtg aagcctggag ggtccctgaa actctcctgt 420
gcagcctctg gattcacttt cactgaccat tacatgtatt gggttcgcca gactccggaa 480
aagaggctgg agtgggtcgc aaccattagt gatggcggtg gtttcacctc ctatccagac 540
agtgtgaagg ggcgattcac catctccaga gacattgccg agaacaacct gtacctccaa 600
atgagcagtc tgaagtctga ggacacagcc atgtattact gtacaagaga tgagagcgat 660
aggccgtttc cttactgggg ccaagggact ctggctactg tctcctccgg aggatgtggc 720
ggtggaaaag tggccgcact gaaggagaaa gttgctgctt tgaaagagaa ggtcgccgca 780
cttaaggaaa aggtcgcagc cctgaaagag 810

<210> 296
<211> 449
<212> PRT
<213> Artificial Sequence

<220>
<223> Third Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 296

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

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

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

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

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

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

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

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

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

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

Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu
Page 188

165										170					175				
Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser	Ser	Val	Val	Thr	Val	Pro	Ser				
			180					185					190						
Ser	Ser	Leu	Gly	Thr	Gln	Thr	Tyr	Ile	Cys	Asn	Val	Asn	His	Lys	Pro				
		195					200					205							
Ser	Asn	Thr	Lys	Val	Asp	Lys	Arg	Val	Glu	Pro	Lys	Ser	Cys	Asp	Lys				
	210					215					220								
Thr	His	Thr	Cys	Pro	Pro	Cys	Pro	Ala	Pro	Glu	Ala	Ala	Gly	Gly	Pro				
225					230					235					240				
Ser	Val	Phe	Leu	Phe	Pro	Pro	Lys	Pro	Lys	Asp	Thr	Leu	Met	Ile	Ser				
				245					250					255					
Arg	Thr	Pro	Glu	Val	Thr	Cys	Val	Val	Val	Asp	Val	Ser	His	Glu	Asp				
			260					265					270						
Pro	Glu	Val	Lys	Phe	Asn	Trp	Tyr	Val	Asp	Gly	Val	Glu	Val	His	Asn				
		275					280					285							
Ala	Lys	Thr	Lys	Pro	Arg	Glu	Glu	Gln	Tyr	Asn	Ser	Thr	Tyr	Arg	Val				
	290					295					300								
Val	Ser	Val	Leu	Thr	Val	Leu	His	Gln	Asp	Trp	Leu	Asn	Gly	Lys	Glu				
305					310					315					320				
Tyr	Lys	Cys	Lys	Val	Ser	Asn	Lys	Ala	Leu	Pro	Ala	Pro	Ile	Glu	Lys				
				325					330					335					
Thr	Ile	Ser	Lys	Ala	Lys	Gly	Gln	Pro	Arg	Glu	Pro	Gln	Val	Tyr	Thr				
			340					345					350						
Leu	Pro	Pro	Ser	Arg	Glu	Glu	Met	Thr	Lys	Asn	Gln	Val	Ser	Leu	Ser				
		355					360					365							
Cys	Ala	Val	Lys	Gly	Phe	Tyr	Pro	Ser	Asp	Ile	Ala	Val	Glu	Trp	Glu				
	370					375					380								
Ser	Asn	Gly	Gln	Pro	Glu	Asn	Asn	Tyr	Lys	Thr	Thr	Pro	Pro	Val	Leu				
385					390					395					400				
Asp	Ser	Asp	Gly	Ser	Phe	Phe	Leu	Val	Ser	Lys	Leu	Thr	Val	Asp	Lys				
				405					410					415					
Ser	Arg	Trp	Gln	Gln	Gly	Asn	Val	Phe	Ser	Cys	Ser	Val	Met	His	Glu				
			420					425					430						
Ala	Leu	His	Asn	Arg	Tyr	Thr	Gln	Lys	Ser	Leu	Ser	Leu	Ser	Pro	Gly				
		435					440					445							

Lys

<210> 297
<211> 1347
<212> DNA
<213> Artificial Sequence

<220>
<223> Polynucleotide Encoding Third Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 297
caggtccagc tgggtccagag cggggccgaa gtcaaaaaac ccggagcaag cgtgaaggctc 60
tcctgcaaag catcaggcta tacatttaca ggcagctgga tgaactgggt gaggcaggct 120
ccaggacagg gactggagtg gatcgggcgc atctaccctg gagacggcga aactaactat 180
aatggaaagt tcaaagaccg agtgaccatc acagccgata agtctactag taccgcctac 240
atggagctga gctccctgcg gtctgaagat accgccgtct actattgcbc tagaatttac 300
ggaaacaatg tctattttga cgtgtggggg cagggaaaca ctgtgactgt ctctccgcc 360
tccaccaagg gcccatcggc cttccccctg gcaccctcct ccaagagcac ctctgggggc 420
acagcggccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540
ctctactccc tcagcagcgt ggtgaccgtg ccctccagca gcttgggcac ccagacctac 600
atctgcaacg tgaatcaca gccagcaac accaaggctg acaagagagt tgagcccaaa 660
tcttgtgaca aaactcacac atgcccaccg tgcccagcac ctgaagccgc ggggggaccg 720
tcagtcttcc tcttcccccc aaaacccaag gacaccctca tgatctcccg gacccttag 780
gtcacatgcg tgggtggtgga cgtgagccac gaagaccctg aggtcaagtt caactggtac 840
gtggacggcg tggaggtgca taatgccaag acaaagccgc gggaggagca gtacaacagc 900
acgtaccgtg tggtcagcgt cctcaccgtc ctgcaccagg actggctgaa tggcaaggag 960
tacaagtgca aggtctccaa caaagccctc ccagccccca tcgagaaaac catctccaaa 1020
gccaaagggc agccccgaga accacaggctg tacaccctgc ccccatcccg ggaggagatg 1080
accaagaacc aggtcagcct gagttgcgca gtcaaaggct tctatcccag cgacatcgcc 1140
gtggagtggg agagcaatgg gcagccggag aacaactaca agaccacgcc tcccgtgctg 1200
gactccgacg gctccttctt cctcgtcagc aagctcaccg tggacaagag caggtggcag 1260
caggggaacg tcttctcatg ctccgtgatg catgaggctc tgcacaaccg ctacacgcag 1320
aagagcctct ccctgtctcc gggtaaa 1347

<210> 298
<211> 213
<212> PRT
<213> Artificial Sequence

<220>

<223> Fourth Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 298

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

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
20 25 30

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

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

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

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
85 90 95

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

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

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

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

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

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

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

Asn Arg Gly Glu Cys
210

<210> 299

<211> 639

<212> DNA

<213> Artificial Sequence

<220>

<223> Polynucleotide Encoding Fourth Polypeptide Chain of "EphA2 mAb 3 x CD3 mAb 2 x gpA33 mAb 1" Tri-Specific Binding Molecule

<400> 299
 gacattcagc tgactcagtc cccctctttt ctgtccgcat ccgtcggaga tcgagtgact 60
 attacttgct ctgctaggtc ctcaatcagc ttcatgtact ggtatcagca gaagcccggc 120
 aaagcaccta agctgctgat ctacgacaca agcaacctgg cctccggggg gccatctcgg 180
 ttctctggca gtgggtcagg aactgagttt accctgacaa ttagctccct ggaggctgaa 240
 gatgccgcta cctactattg ccagcagtgg agcagctatc ctctgacctt cggacagggg 300
 actaaactgg aaatcaagcg tacgggtggct gcaccatcgg tcttcatctt cccgccatct 360
 gatgagcagt tgaaatctgg aactgcctct gttgtgtgcc tgctgaataa cttctatccc 420
 agagaggcca aagtacagtg gaaggtggat aacgccctcc aatcgggtaa ctcccaggag 480
 agtgtcacag agcaggacag caaggacagc acctacagcc tcagcagcac cctgacgctg 540
 agcaaagcag actacgagaa acacaaagtc tacgcctgcg aagtcacca tcagggcctg 600
 agctcgcccg tcacaaagag cttcaacagg ggagagtgt 639

<210> 300
 <211> 279
 <212> PRT
 <213> Artificial Sequence

<220>
 <223> First Polypeptide Chain of "4-4-20 x CD3 mAb 2" Diabody

<400> 300
 Asp Val Val Met Thr Gln Thr Pro Phe Ser Leu Pro Val Ser Leu Gly
 1 5 10 15
 Asp Gln Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
 20 25 30
 Asn Gly Asn Thr Tyr Leu Arg Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Lys Val Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Leu Gly Val Tyr Phe Cys Ser Gln Ser
 85 90 95
 Thr His Val Pro Trp Thr Phe Gly Gly Gly Thr Lys Leu Glu Ile Lys
 100 105 110
 Gly Gly Gly Ser Gly Gly Gly Gly Glu Val Gln Leu Val Glu Ser Gly
 115 120 125
 Gly Gly Leu Val Gln Pro Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala
 130 135 140

Ser Gly Phe Thr Phe Asn Thr Tyr Ala Met Asn Trp Val Arg Gln Ala
145 150 155 160

Pro Gly Lys Gly Leu Glu Trp Val Ala Arg Ile Arg Ser Lys Tyr Asn
165 170 175

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

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

Lys Thr Glu Asp Thr Ala Val Tyr Tyr Cys Val Arg His Gly Asn Phe
210 215 220

Gly Asn Ser Tyr Val Ser Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu
225 230 235 240

Val Thr Val Ser Ser Gly Gly Cys Gly Gly Gly Glu Val Ala Ala Leu
245 250 255

Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys
260 265 270

Glu Val Ala Ala Leu Glu Lys
275

<210> 301
<211> 270
<212> PRT
<213> Artificial Sequence

<220>
<223> Second Polypeptide Chain of "4-4-20 x CD3 mAb 2" Diabody
<400> 301

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

Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser
20 25 30

Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly
35 40 45

Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe
50 55 60

Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala
65 70 75 80

Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn
Page 193

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

<210> 302
 <211> 108
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(108)
 <223> Murine Anti-Human CD317 Antibody ("HM1.24 mAb 1") Light Chain
 Variable Domain

<400> 302

Asp Ile Val Met Thr Gln Ser His Lys Phe Met Ser Thr Ser Val Gly
 1 5 10 15
 Asp Arg Val Ser Ile Thr Cys Lys Lys Ala Ser Gln Asp Val Asn Thr
 20 25 30

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

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

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

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

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

<210> 303
<211> 120
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(120)
<223> Murine Anti-Human CD317 Antibody ("HM1.24 mAb 1") Heavy Chain
Variable Domain

<400> 303

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

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

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

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

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

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

Ala Arg Gly Leu Arg Arg Gly Gly Tyr Tyr Phe Asp Tyr Trp Gly Gln
100 105 110

Gly Thr Thr Leu Thr Val Ser Ser
115 120

<210> 304
<211> 107
<212> PRT

<213> Artificial Sequence

<220>

<223> Murine Anti-Human CEACAM5 / CEACAM6 Antibody (16C3; EP 2585476)
Light Chain Variable Domain

<400> 304

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

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

Leu Asn Trp Tyr Gln Arg Lys Pro Gly Lys Ser Pro Lys Leu Leu Ile
35 40 45

Trp Gly Ala Ser Asn Leu Ala Asp Gly Met Pro Ser Arg Phe Ser Gly
50 55 60

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

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

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

<210> 305

<211> 121

<212> PRT

<213> Artificial Sequence

<220>

<223> Humanized Anti-Human CEACAM5 / CEACAM6 Antibody (16C3; EP
2585476) Heavy Chain Variable Domain

<400> 305

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

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

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

Gly Leu Ile Ser Thr Tyr Ser Gly Asp Thr Lys Tyr Asn Gln Asn Phe
50 55 60

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

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

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

Gln Gly Thr Leu Val Thr Val Ser Ser
115 120

<210> 306
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human CEACAM5 / CEACAM6 Antibody (hMN15; WO 2011/034660) Light Chain Variable Domain

<400> 306

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

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

His Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Trp Ile Tyr
35 40 45

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

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

Asp Ile Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Tyr Asn Pro Pro Thr
85 90 95

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

<210> 307
<211> 121
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human CEACAM5 / CEACAM6 Antibody (hMN15; WO 2011/034660) Heavy Chain Variable Domain

<400> 307

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

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

Tyr Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Leu
Page 197

35

40

45

Gly Phe Ile Ala Asn Lys Ala Asn Gly His Thr Thr Asp Tyr Ser Pro
 50 55 60

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

Leu Phe Leu Gln Met Asp Ser Leu Arg Pro Glu Asp Thr Gly Val Tyr
 85 90 95

Phe Cys Ala Arg Asp Met Gly Ile Arg Trp Asn Phe Asp Val Trp Gly
 100 105 110

Gln Gly Thr Pro Val Thr Val Ser Ser
 115 120

<210> 308
 <211> 107
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(107)
 <223> Murine Anti-Human 5T4 Antibody ("5T4 mAb 1") Light Chain Variable
 Domain

<400> 308

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

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

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

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

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

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

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

<210> 309
 <211> 118
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(118)
 <223> Murine Anti-Human 5T4 Antibody ("5T4 mAb 1") Heavy Chain Variable Domain

<400> 309

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

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

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

Gly Arg Ile Asp Pro Asn Arg Gly Gly Thr Glu Tyr Asn Glu Lys Ala
 50 55 60

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

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

Ala Gly Gly Asn Pro Tyr Tyr Pro Met Asp Tyr Trp Gly Gln Gly Thr
 100 105 110

Thr Val Thr Val Ser Ser
 115

<210> 310
 <211> 112
 <212> PRT
 <213> Mus musculus

<220>
 <221> MISC_FEATURE
 <222> (1)..(112)
 <223> Murine Anti-Human 5T4 Antibody ("5T4 mAb 2") Light Chain Variable Domain

<400> 310

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

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

Asn Gly Asn Thr Tyr Leu Glu Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45

Pro Lys Leu Leu Ile Tyr Lys Val Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60

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

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

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

<210> 311
<211> 127
<212> PRT
<213> Mus musculus

<220>
<221> MISC_FEATURE
<222> (1)..(127)
<223> Murine Anti-Human 5T4 Antibody ("5T4 mAb 2") Heavy Chain Variable Domain

<400> 311

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

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

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

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

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

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

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

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

<210> 312
<211> 108
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human ITGB6 Antibody (Derived from Antibody 3G9,
PCT Publication No. WO 2007/008712) Light Chain Variable Domain

<400> 312

Glu Ile Val Leu Thr Gln Ser Pro Ala Thr Leu Ser Leu Ser Pro Gly

<210> 314
<211> 111
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human ITGB6 Antibody (Derived from Antibody 8G6;
PCT Publication No. WO 2007/008712) Light Chain Variable Domain

<400> 314

Glu Ile Val Leu Thr Gln Ser Pro Ala 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 Thr Ser
20 25 30

Ser Tyr Ser Tyr Met Tyr Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro
35 40 45

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

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

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

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

<210> 315
<211> 126
<212> PRT
<213> Artificial Sequence

<220>
<223> Humanized Anti-Human ITGB6 Antibody (Derived from Antibody 8G6;
PCT Publication No. WO 2007/008712) Heavy Chain Variable Domain

<400> 315

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

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

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

Gly Val Ile Ser Thr Tyr Tyr Gly Asn Thr Asn Tyr Asn Gln Lys Phe
50 55 60

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

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

Ala Arg Gly Gly Leu Arg Arg Gly Asp Arg Pro Ser Leu Gln Tyr Ala
100 105 110

Met Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120 125

<210> 316

<211> 272

<212> PRT

<213> Artificial Sequence

<220>

<223> First Polypeptide Chain of "gpA33 x CD3 mAb 2" Diabody

<400> 316

Asp Ile Gln Leu Thr Gln Ser Pro Ser Phe Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Ser Ala Arg Ser Ser Ile Ser Phe Met
20 25 30

Tyr Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile Tyr
35 40 45

Asp Thr Ser Asn Leu Ala Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
50 55 60

Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Glu Ala Glu
65 70 75 80

Asp Ala Ala Thr Tyr Tyr Cys Gln Gln Trp Ser Ser Tyr Pro Leu Thr
85 90 95

Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Gly Gly Gly Ser Gly Gly
100 105 110

Gly Gly Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
115 120 125

Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser
130 135 140

Thr Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
145 150 155 160

Trp Val Gly Arg Ile Arg Ser Lys Tyr Asn Asn Tyr Ala Thr Tyr Tyr
165 170 175

Ala Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys
Page 203

180	185	190
Asn Ser Leu Tyr Leu Gln Met	Asn Ser Leu Lys Thr Glu	Asp Thr Ala
195	200	205
Val Tyr Tyr Cys Val Arg His	Gly Asn Phe Gly Asn Ser Tyr Val Ser	
210	215	220
Trp Phe Ala Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala		
225	230	235
Ser Thr Lys Gly Glu Val Ala Ala Cys Glu Lys Glu Val Ala Ala Leu		
245	250	255
Glu Lys Glu Val Ala Ala Leu Glu Lys Glu Val Ala Ala Leu Glu Lys		
260	265	270
<210> 317		
<211> 270		
<212> PRT		
<213> Artificial Sequence		
<220>		
<223> Second Polypeptide Chain of "gpA33 x CD3 mAb 2" Diabody		
<400> 317		
Gln Ala Val Val Thr Gln Glu Pro Ser Leu Thr Val Ser Pro Gly Gly		
1	5	10
Thr Val Thr Leu Thr Cys Arg Ser Ser Thr Gly Ala Val Thr Thr Ser		
20	25	30
Asn Tyr Ala Asn Trp Val Gln Gln Lys Pro Gly Gln Ala Pro Arg Gly		
35	40	45
Leu Ile Gly Gly Thr Asn Lys Arg Ala Pro Trp Thr Pro Ala Arg Phe		
50	55	60
Ser Gly Ser Leu Leu Gly Gly Lys Ala Ala Leu Thr Ile Thr Gly Ala		
65	70	75
Gln Ala Glu Asp Glu Ala Asp Tyr Tyr Cys Ala Leu Trp Tyr Ser Asn		
85	90	95
Leu Trp Val Phe Gly Gly Gly Thr Lys Leu Thr Val Leu Gly Gly Gly		
100	105	110
Gly Ser Gly Gly Gly Gly Gln Val Gln Leu Val Gln Ser Gly Ala Glu		
115	120	125
Val Lys Lys Pro Gly Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly		
130	135	140

Tyr Thr Phe Thr Gly Ser Trp Met Asn Trp Val Arg Gln Ala Pro Gly
145 150 155 160

Gln Gly Leu Glu Trp Ile Gly Arg Ile Tyr Pro Gly Asp Gly Glu Thr
165 170 175

Asn Tyr Asn Gly Lys Phe Lys Asp Arg Val Thr Ile Thr Ala Asp Lys
180 185 190

Ser Thr Ser Thr Ala Tyr Met Glu Leu Ser Ser Leu Arg Ser Glu Asp
195 200 205

Thr Ala Val Tyr Tyr Cys Ala Arg Ile Tyr Gly Asn Asn Val Tyr Phe
210 215 220

Asp Val Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr
225 230 235 240

Lys Gly Lys Val Ala Ala Cys Lys Glu Lys Val Ala Ala Leu Lys Glu
245 250 255

Lys Val Ala Ala Leu Lys Glu Lys Val Ala Ala Leu Lys Glu
260 265 270

<210> 318
<211> 333
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<222> (1)..(333)
<223> Polynucleotide encoding Murine Anti-Human EphA2 Antibody ("EphA2
mAb 2") Light Chain Variable Domain (SEQ ID NO:163)

<400> 318
gatgttgta tgacccaaac tccactctcc ctgcctgtca gtcttggaga tcaagcctcc 60
atctcttgca gatctagtca gagccttgta cacagtagtg gaaacaccta ttacattgg 120
tacctgcaga agccaggcca gtctccaaag ctctgatct acaaagtttc caaccgattt 180
tctgggggtcc cagacagggt cagtggcagt ggatcagga cagatttcac actcaagatc 240
agcagagtgg aggctgagga tctgggagtt tatttctgct ctcaaagtac acatgttccc 300
acgttcggct cggggacaaa gttggaata aaa 333

<210> 319
<211> 354
<212> DNA
<213> Mus musculus

<220>
<221> misc_feature
<222> (1)..(354)
<223> Polynucleotide Encoding Murine Anti-Human EphA2 Antibody ("EphA2
mAb 3") Heavy Chain Variable Domain (SEQ ID NO:177)

<400> 319

gaagtgcagc tggtaggagtc tgggggagggc tcagtgaagc ctggaggggtc cctgaaactc 60
tcctgtgcag cctctggatt cactttcact gaccattaca tgtattgggt tcgccagact 120
ccggaaaaga ggctggagtg ggtcgcaacc attagtgatg gcggtagttt cacctcctat 180
ccagacagtg tgaaggggcg attcaccatc tccagagaca ttgccaagaa caacctgtac 240
ctccaaatga gcagtctgaa gtctgaggac acagccatgt attactgtac aagagatgag 300
agcgatagggc cgtttcctta ctgggggcca gggactctgg tcactgtctc ctcc 354

<210> 320
<211> 11
<212> PRT
<213> Artificial Sequence

<220>
<223> humanized Anti-Human DR5 Antibody ("DR5 mAb 2") Heavy Chain Variable Domain CDRL1

<400> 320

Arg Ala Ser Gln Asp Val Asn Thr Ala Val Ala
1 5 10

<210> 321
<211> 107
<212> PRT
<213> Artificial Sequence

<220>
<223> humanized anti-IL13RA2 Antibody ("HU08") LightChain Variable

<400> 321

Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
1 5 10 15

Asp Arg Val Thr Ile Thr Cys Lys Ala Ser Gln Asp Val Gly Thr Ala
20 25 30

Val Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
35 40 45

Tyr Ser Ala Ser Tyr Arg Ser Thr Gly Val Pro Ser Arg Phe Ser Gly
50 55 60

Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80

Glu Asp Phe Ala Thr Tyr Tyr Cys Gln His His Tyr Ser Ala Pro Trp
85 90 95

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
100 105

<210> 322
<211> 122
<212> PRT

<213> Artificial Sequence

<220>

<223> humanized anti-IL13RA2 Antibody ("HU08") Heavy Chain Variable

<400> 322

Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
1 5 10 15

Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Asn
20 25 30

Gly Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35 40 45

Ala Thr Val Ser Ser Gly Gly Ser Tyr Ile Tyr Tyr Ala Asp Ser Val
50 55 60

Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
65 70 75 80

Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85 90 95

Ala Arg Gln Gly Thr Thr Ala Leu Ala Thr Arg Phe Phe Asp Val Trp
100 105 110

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
115 120