Sequence Listing

<110> GENENTECH, INC.
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<120> HUMANIZED ANTI-FACTOR D ANTIBODIES AND USES THEREOF

<130> P4188R1 WO

<150> US 61/048,431
<151> 2008-04-28

<150> US 61/048,689
<151> 2008-04-29

<160> 74

<210> 1
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable Light Chain Domain of Humanized Clone #111

<400> 1

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

<210> 2
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable Heavy Chain Domain of Humanized Clone #111

<400> 2

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

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
                50                  55                  60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
                80                  85                  90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
                95                  100                 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
               110                 115
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<210> 3
<211> 31
<212> PRT
<213> Artificial sequence

<220>
<223> Sequence is synthesized (FR3 from VH acceptor human framework)

<400> 3

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Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr Leu
  1               5                  10                  15

Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                20                  25                  30

Ser
```

<210> 4
<211> 32
<212> PRT
<213> Artificial sequence

<220>
<223> Sequence is synthesized (FR3 from VH acceptor human framework)

<400> 4

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Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr Leu
  1               5                  10                  15

Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
                20                  25                  30

Ser Arg
```

<210> 5
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> Sequence is synthesized (FR4 from VL acceptor human framework)

<400> 5

```
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
                5                  10
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<210> 6
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238

<400> 6
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu
95 100 105

Ile Lys

<210> 7
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-factor D Fab 238-1

<400> 7
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu
95 100 105

Ile Lys

<210> 8

<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable lilght chain domain of modified humanized anti-Factor D Fab 238-2

<400> 8
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

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

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 9
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-3

<400> 9
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

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

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 10
<211> 107
<212> PRT

<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-4

<400> 10
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Ala Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 11
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-5

<400> 11
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Gln Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 12
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-6

<400> 12
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Ser Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 13
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-7

<400> 13
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Ala Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 14
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-8

<400> 14
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 15
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-9

<400> 15
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 16
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-10

<400> 16

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

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 17
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain domain of modified humanized anti-Factor D Fab 238-11

<400> 17
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Leu Glu
95 100 105

Ile Lys

<210> 18
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238

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

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
                50                  55                  60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
                80                  85                  90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
                95                 100                 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
               110                 115
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<210> 19
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-1

<400> 19

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

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

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

 Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
                50                  55                  60

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

 Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
                80                  85                  90

 Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
                95                 100                 105

 Gly Gln Gly Thr Leu Val Thr Val Ser Ser
               110                 115
```

<210> 20
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-2

<400> 20

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

 Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr
```

20 25 30

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 21
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-3

<400> 21
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 22
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D FAB 238-4

<400> 22
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 23
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-5

<400> 23
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 24
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-6

<400> 24
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 25
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-7

<400> 25
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 26
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-8

<400> 26
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr

50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Ala Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 27
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-9

<400> 27
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Gln Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 28
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain domain of modified humanized anti-Factor D Fab 238-10

<400> 28
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Ala Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 29
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain doman of modified humanized anti-Factor D Fab 238-11

<400> 29
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Gln Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
110 115

<210> 30
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-L1 of #111 and 238 to 238-1, 238-6 to 238-11

<400> 30
Ile Thr Ser Thr Asp Ile Asp Asp Asp Met Asn
5 10

<210> 31
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-L1 of modified humanized anti-Factor D Fab 238-2

<400> 31
Ile Thr Ser Thr Asp Ile Asp Asp Asp Leu Asn
5 10

<210> 32
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-L1 of modified humanized anti-Factor D Fab 238-3

<400> 32
Ile Thr Ser Thr Asp Ile Asp Asp Asp Ile Asn
5 10

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

<220>
<223> HVR-L1 of modified humanized anti-Factor D Fab 238-4

<400> 33
Ile Thr Ser Thr Asp Ile Asp Asp Asp Met Ala
5 10

<210> 34
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-L1 of modified humanized anti-Factor D Fab 238-5

<400> 34
Ile Thr Ser Thr Asp Ile Asp Asp Asp Met Gln
5 10

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

<220>
<223> HVR-L2 of #111 and 238 to 238-5 and 238-8 to 238-11

<400> 35
Gly Gly Asn Thr Leu Arg Pro
5

<210> 36
<211> 7
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-L2 of modified humanized anti-Factor D Fab 238-6

<400> 36
Gly Gly Ser Thr Leu Arg Pro
5

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

<220>
<223> HVR-L2 of modified humanized anti-Factor D Fab 238-7

<400> 37
Gly Gly Ala Thr Leu Arg Pro
5

<210> 38
<211> 9
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-L3 of #111 and 238 to 238-11

<400> 38
Leu Gln Ser Asp Ser Leu Pro Tyr Thr
5

<210> 39
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-H1 of #111 and 238 to 238-11

<400> 39
Gly Tyr Thr Phe Thr Asn Tyr Gly Met Asn
5 10

<210> 40
<211> 17
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-H2 of #111 and 238 to 238-11

<400> 40
Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr Ala Asp Asp Phe
1 5 10 15

Lys Gly

<210> 41
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-H3 of #111 and 238 to 238-7

<400> 41
Glu Gly Gly Val Asn Asn
5

<210> 42
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-H3 of modified humanized anti-Factor D Fab 238-8

<400> 42
Glu Gly Gly Val Ala Asn
5

<210> 43
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-H3 of modified humanized anti-Factor D Fab 238-9

<400> 43
Glu Gly Gly Val Gln Asn
5

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

<220>
<223> HVR-H3 of modified humanized anti-Factor D Fab 238-10

<400> 44
Glu Gly Gly Val Asn Ala
5

<210> 45
<211> 6
<212> PRT
<213> Artificial sequence

<220>
<223> HVR-H3 of modified humanized anti-Factor D Fab 238-11

<400> 45
Glu Gly Gly Val Asn Gln
5

<210> 46
<211> 714
<212> DNA
<213> Artificial sequence

<220>
<223> Light chain domain of modified humanized anti-Factor D Fab 238

<400> 46
atgaagaaga atattgcgtt cctacttgcc tctatgtttg tcttttctat 50

agctacaaac gcgtatgctg atatccaggt gacccagtct ccatcctccc 100

tgtctgcatc tgtaggagac cgcgtcacca tcacttgcat taccagcact 150

gatattgatg atgatatgaa ctggtatcag cagaaaccag ggaaagttcc 200

taagctcctg atctctggag gcaatactct tcgtcctggg gtcccatctc 250

ggttcagtgg cagtggatct gggacagatt tcactctcac catcagcagc 300

ctgcagcctg aagatgttgc aacttattac tgtttgcaaa gtgattcttt 350

gccgtacacg tttggccagg gtaccaaggt ggagatcaaa cgaactgtgg 400

ctgcaccatc tgtcttcatc ttcccgccat ctgatgagca gttgaaatct 450

ggaactgctt ctgttgtgtg cctgctgaat aacttctatc ccagagaggc 500

caaagtacag tggaaggtgg ataacgccct ccaatcgggt aactcccagg 550

agagtgtcac agagcaggac agcaaggaca gcacctacag cctcagcagc 600

accctgacgc tgagcaaagc agactacgag aaacacaaag tctacgcctg 650

cgaagtcacc catcagggcc tgagctcgcc cgtcacaaag agcttcaaca 700

ggggagagtg ttaa 714

<210> 47
<211> 214
<212> PRT
<213> Artificial sequence

<220>
<223> Light chain domain of modified humanized anti-Factor D Fab 238

<400> 47

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

<210> 48
<211> 23
<212> PRT
<213> Artificial sequence

<220>
<223> FR1-LC of light chain domain of modified humanized anti-Factor D Fab 238

<400> 48
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys
20

<210> 49
<211> 15
<212> PRT
<213> Artificial sequence

<220>
<223> FR2-LC of light chain domain of modified humanized anti-Factor D Fab 238

<400> 49
Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys Leu Leu Ile Ser
1 5 10 15

<210> 50
<211> 32
<212> PRT
<213> Artificial sequence

<220>
<223> FR3-LC of light chain domain of modified humanized anti-Factor D Fab 238

<400> 50
Gly Val Pro Ser Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe
1 5 10 15

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

Tyr Cys

<210> 51
<211> 10
<212> PRT
<213> Artificial sequence

<220>
<223> FR4-LC of light chain domain of modified humanized anti-Factor D Fab 238

<400> 51
Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
5 10

<210> 52
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> CL1 of light chain domain of modified humanized anti-Factor D Fab 238 to 238-1

<400> 52
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
1 5 10 15

Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
20 25 30

Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn
35 40 45

Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln Asp
50 55 60

Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
65 70 75

Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr
80 85 90

His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly
95 100 105

Glu Cys

<210> 53
<211> 741
<212> DNA
<213> Artificial sequence

<220>
<223> Heavy chain domain of modified humanized anti-Factor D Fab 238

<400> 53
atgaaaaaga atatcgcatt tcttcttgca tctatgttcg ttttttctat 50

tgctacaaac gcgtacgctc aggtccagct ggtgcaatct gggcctgagt 100

tgaagaagcc tggggcctca gtgaaggttt cctgcaaggc ttctggatac 150

accttcacta actatggaat gaactgggtg cgccaagccc ctggacaagg 200

gcttgagtgg atgggatgga ttaacaccta cactggagag acaacatatg 250

ctgatgactt caagggacgg tttgtcttct ccttggacac ctctgtcagc 300

acggcatatc tgcagatcag cagcctcaag gctgaggaca ctgccgtgta 350

ttactgtgag cgcgaggggg gggttaataa ctggggccaa gggaccctgg 400

tcaccgtctc ctcagcctcc accaagggcc catcggtctt ccccctggca 450

ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggt 500

caaggactac ttccccgaac cggtgacggt gtcgtggaac tcaggcgccc 550

tgaccagcgg cgtgcacacc ttcccggctg tcctacagtc ctcaggactc 600

tactccctca gcagcgtggt gaccgtgccc tccagcagct tgggcaccca 650

gacctacatc tgcaacgtga atcacaagcc cagcaacacc aaggtggaca 700

agaaagttga gcccaaatct tgtgacaaaa ctcacacata a 741

<210> 54
<211> 223
<212> PRT
<213> Artificial sequence

<220>
<223> Heavy chain domain of modified humanized anti-Factor D Fab 238

<400> 54
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

Ala Ser Val Lys Val Ser Cys Lys Ala Ser Gly Tyr Thr Phe Thr

20 25 30

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
110 115 120

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
125 130 135

Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
140 145 150

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
155 160 165

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
170 175 180

Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
185 190 195

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
200 205 210

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

<210> 55
<211> 25
<212> PRT
<213> Artificial sequence

<220>
<223> FR1-HC of heavy chain domain of modified humanized anti-Factor D Fab 238

<400> 55
Gln Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

Ala Ser Val Lys Val Ser Cys Lys Ala Ser
20 25

<210> 56
<211> 14
<212> PRT
<213> Artificial sequence

<220>
<223> FR2-HC of heavy chain domain of modified humanized anti-Factor D Fab 238

<400> 56
Trp Val Arg Gln Ala Pro Gly Gln Gly Leu Glu Trp Met Gly
5 10

<210> 57
<211> 32
<212> PRT
<213> Artificial sequence

<220>
<223> FR3-HC of heavy chain domain of modified humanized anti-Factor D Fab 238

<400> 57
Arg Phe Val Phe Ser Leu Asp Thr Ser Val Ser Thr Ala Tyr Leu
1 5 10 15

Gln Ile Ser Ser Leu Lys Ala Glu Asp Thr Ala Val Tyr Tyr Cys
20 25 30

Glu Arg

<210> 58
<211> 11
<212> PRT
<213> Artificial sequence

<220>
<223> FR4-HC of heavy chain domain of modified humanized anti-Factor D Fab 238

<400> 58
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
5 10

<210> 59
<211> 108
<212> PRT
<213> Artificial sequence

<220>
<223> CH1 of heavy chain domain of modified humanized anti-Factor D Fab 238 to 238-1

<400> 59
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Ser Ser
1 5 10 15

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

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

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

Gly Leu Tyr Ser Leu Ser Ser Val Val Thr Val Pro Ser Ser Ser
65 70 75

Leu Gly Thr Gln Thr Tyr Ile Cys Asn Val Asn His Lys Pro Ser
80 85 90

Asn Thr Lys Val Asp Lys Lys Val Glu Pro Lys Ser Cys Asp Lys
95 100 105

Thr His Thr

<210> 60
<211> 714
<212> DNA
<213> Artificial sequence

<220>
<223> Light chain domain of modified humanized anti-Factor D Fab 238-1

<400> 60
atgaagaaga atattgcgtt cctacttgcc tctatgtttg tcttttctat 50

agctacaaac gcgtatgctg atatccaggt gacccagtct ccatcctccc 100

tgtctgcatc tgtaggagac cgcgtcacca tcacttgcat taccagcact 150

gatattgatg atgatatgaa ctggtatcag cagaaaccag ggaaagttcc 200

taagctcctg atctctggag gcaatactct tcgtcctggg gtcccatctc 250

ggttcagtgg cagtggatct gggacagatt tcactctcac catcagcagc 300

ctgcagcctg aagatgttgc aacttattac tgtttgcaaa gtgattcttt 350

gccgtacacg tttggccagg gtaccaaggt ggagatcaaa cgaactgtgg 400

ctgcaccatc tgtcttcatc ttcccgccat ctgatgagca gttgaaatct 450

ggaactgctt ctgttgtgtg cctgctgaat aacttctatc ccagagaggc 500

caaagtacag tggaaggtgg ataacgccct ccaatcgggt aactcccagg 550

agagtgtcac agagcaggac agcaaggaca gcacctacag cctcagcagc 600

accctgacgc tgagcaaagc agactacgag aaacacaaag tctacgcctg 650

cgaagtcacc catcagggcc tgagctcgcc cgtcacaaag agcttcaaca 700

ggggagagtg ttaa 714

<210> 61
<211> 214
<212> PRT
<213> Artificial sequence

<220>
<223> Light chain domain of modified humanized anti-Factor D Fab 238-1

<400> 61
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Met Asn Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Asn Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Val Glu
95 100 105

Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro
110 115 120

Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu
125 130 135

Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
140 145 150

Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu
155 160 165

Gln Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr
170 175 180

Leu Ser Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu
185 190 195

Val Thr His Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn
200 205 210

Arg Gly Glu Cys

<210> 62
<211> 741
<212> DNA
<213> Artificial sequence

<220>
<223> Heavy chain domain of modified humanized anti-Factor D Fab 238-1

<400> 62
atgaaaaaga atatcgcatt tcttcttgca tctatgttcg ttttttctat 50

tgctacaaac gcgtacgctg aagtccagct ggtgcaatct gggcctgagt 100

tgaagaagcc tggggcctca gtgaaggttt cctgcaaggc ttctggatac 150

accttcacta actatggaat gaactgggtg cgccaagccc ctggacaagg 200

gcttgagtgg atgggatgga ttaacaccta cactggagag acaacatatg 250

ctgatgactt caagggacgg tttgtcttct ccttggacac ctctgtcagc 300

acggcatatc tgcagatcag cagcctcaag gctgaggaca ctgccgtgta 350

ttactgtgag cgcgaggggg gggttaataa ctggggccaa gggaccctgg 400

tcaccgtctc ctcagcctcc accaagggcc catcggtctt ccccctggca 450

ccctcctcca agagcacctc tgggggcaca gcggccctgg gctgcctggt 500

caaggactac ttccccgaac cggtgacggt gtcgtggaac tcaggcgccc 550

tgaccagcgg cgtgcacacc ttcccggctg tcctacagtc ctcaggactc 600

tactccctca gcagcgtggt gaccgtgccc tccagcagct tgggcaccca 650

gacctacatc tgcaacgtga atcacaagcc cagcaacacc aaggtggaca 700

agaaagttga gcccaaatct tgtgacaaaa ctcacacata a 741

<210> 63
<211> 223
<212> PRT
<213> Artificial sequence

<220>
<223> Heavy chain domain of modified humanized anti-Factor D Fab 238-1

<400> 63
Glu Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Asn Asn Trp
95 100 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly
110 115 120

Pro Ser Val Phe Pro Leu Ala Pro Ser Ser Lys Ser Thr Ser Gly
125 130 135

Gly Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
140 145 150

Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
155 160 165

His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu
170 175 180

Ser Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Gln Thr
185 190 195

Tyr Ile Cys Asn Val Asn His Lys Pro Ser Asn Thr Lys Val Asp
200 205 210

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

<210> 64
<211> 25
<212> PRT
<213> Artificial sequence

<220>
<223> FR1-HC of heavy chain domain of modified humanized anti-Factor D Fab 238-1

<400> 64
Glu Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

Ala Ser Val Lys Val Ser Cys Lys Ala Ser
20 25

<210> 65
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> VL Kappa I consensus sequence

<400> 65
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

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

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

Leu Leu Ile Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln
80 85 90

Tyr Asn Ser Tyr Pro Thr Phe Gly Gln Gly Thr Lys Val Glu Ile
95 100 105

Lys Arg

<210> 66
<211> 109
<212> PRT
<213> Artificial sequence

<220>
<223> VH7 subgroup VII consensus sequence

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

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

Ser Tyr Ala Met Asn Trp Val Arg Gln Ala Pro Gly Gln Gly Leu
35 40 45

Glu Trp Met Gly Trp Ile Asn Thr Asn Thr Gly Asn Pro Thr Tyr
50 55 60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
80 85 90

Thr Ala Val Tyr Tyr Cys Ala Arg Trp Gly Gln Gly Thr Ser Leu
95 100 105

Thr Val Ser Ser

<210> 67
<211> 37
<212> DNA
<213> Artificial sequence

<220>
<223> Synthesized Oligonucleotide Primer for pAEP1-283 VL

<400> 67

tttccctttg atatccaggt gacccagtct ccatcct 37

<210> 68
<211> 42
<212> DNA
<213> Artificial sequence

<220>
<223> Synthesized Oligonucleotide Primer for pAEPI-238-VL

<400> 68
tttccctttg gtaccctggc caaacgtgta cggcaaagaa tc 42

<210> 69
<211> 41
<212> DNA
<213> Artificial sequence

<220>
<223> Synthesized Oligonucleotide Primer for p238

<400> 69
tttgggtttc gtacgctcag gtccagctgg tgcaatctgg g 41

<210> 70
<211> 47
<212> DNA
<213> Artificial sequence

<220>
<223> Synthesized Oligonucleotide Primer for p238

<400> 70
tttgggtttg ggcccttggt ggaggctgag gagacggtga ccagggt 47

<210> 71
<211> 41
<212> DNA
<213> Artificial sequence

<220>
<223> Synthesized Oligonucleotide Primer for p238-1

<400> 71
tttgggtttc gtacgctgaa gtccagctgg tgcaatctgg g 41

<210> 72
<211> 47
<212> DNA
<213> Artificial sequence

<220>
<223> Synthesized Oligonucleotide Primer for p238-1

<400> 72
tttgggtttg ggcccttggt ggaggctgag gagacggtga ccagggt 47

<210> 73
<211> 107
<212> PRT
<213> Artificial sequence

<220>
<223> Variable light chain composite of modified humanized anti-Factor D Fab clones

<220>
<221> Xaa

<222> 33-34
<223> Unknown amino acid

<220>
<221> Xaa
<222> 52
<223> Unknown amino acid

<220>
<221> Xaa
<222> 104
<223> Unknown amino acid

<400> 73
Asp Ile Gln Val Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val
1 5 10 15

Gly Asp Arg Val Thr Ile Thr Cys Ile Thr Ser Thr Asp Ile Asp
20 25 30

Asp Asp Xaa Xaa Trp Tyr Gln Gln Lys Pro Gly Lys Val Pro Lys
35 40 45

Leu Leu Ile Ser Gly Gly Xaa Thr Leu Arg Pro Gly Val Pro Ser
50 55 60

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

Ser Ser Leu Gln Pro Glu Asp Val Ala Thr Tyr Tyr Cys Leu Gln
80 85 90

Ser Asp Ser Leu Pro Tyr Thr Phe Gly Gln Gly Thr Lys Xaa Glu
95 100 105

Ile Lys

<210> 74
<211> 115
<212> PRT
<213> Artificial sequence

<220>
<223> Variable heavy chain composite of modified humanized Anti-Factor D Fab Clones

<220>
<221> Xaa
<222> 1
<223> Unknown amino acid

<220>
<221> Xaa
<222> 103
<223> Unknown amino acid

<220>
<221> Xaa
<222> 104
<223> Unknown amino acid

<400> 74
Xaa Val Gln Leu Val Gln Ser Gly Pro Glu Leu Lys Lys Pro Gly
1 5 10 15

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

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

Glu Trp Met Gly Trp Ile Asn Thr Tyr Thr Gly Glu Thr Thr Tyr
            50                  55                  60

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

Val Ser Thr Ala Tyr Leu Gln Ile Ser Ser Leu Lys Ala Glu Asp
    80                  85                  90

Thr Ala Val Tyr Tyr Cys Glu Arg Glu Gly Gly Val Xaa Xaa Trp
                95                  100                 105

Gly Gln Gly Thr Leu Val Thr Val Ser Ser
            110                 115
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