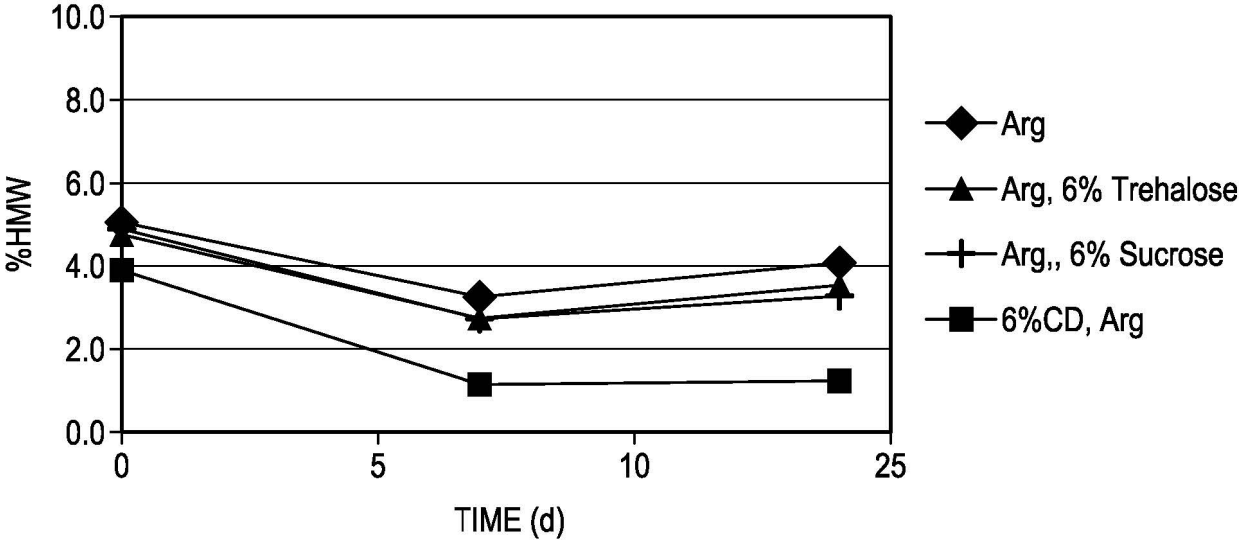

10.0
8.0
6.0
4.0
2.0
0.0
%HMW
0
5
10
25
TIME (d)
Arg
Arg, 6% Trehalose
Arg,, 6% Sucrose
6%CD, Arg

Fig. 1

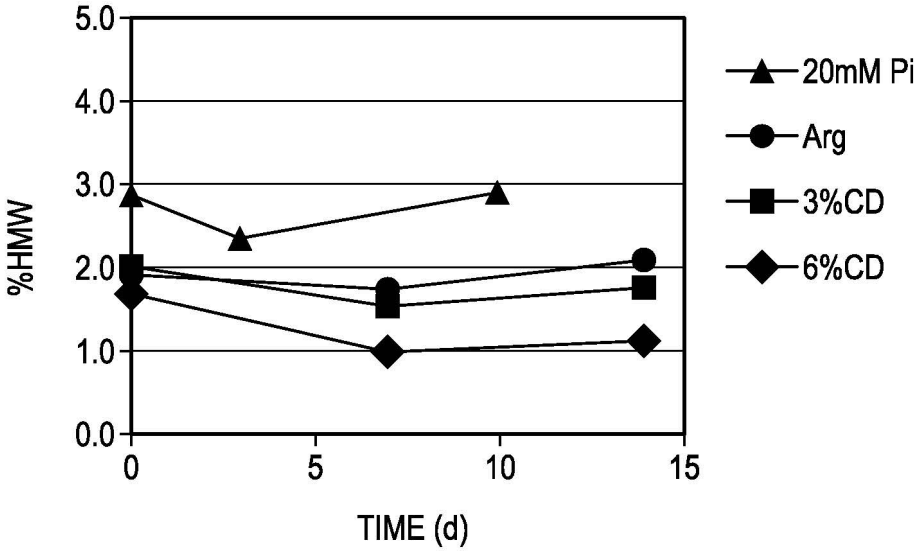

5.0
4.0
3.0
2.0
1.0
0.0
%HMW
0
5
10
15
TIME (d)
20mM Pi
Arg
3%CD
6%CD

Fig. 2

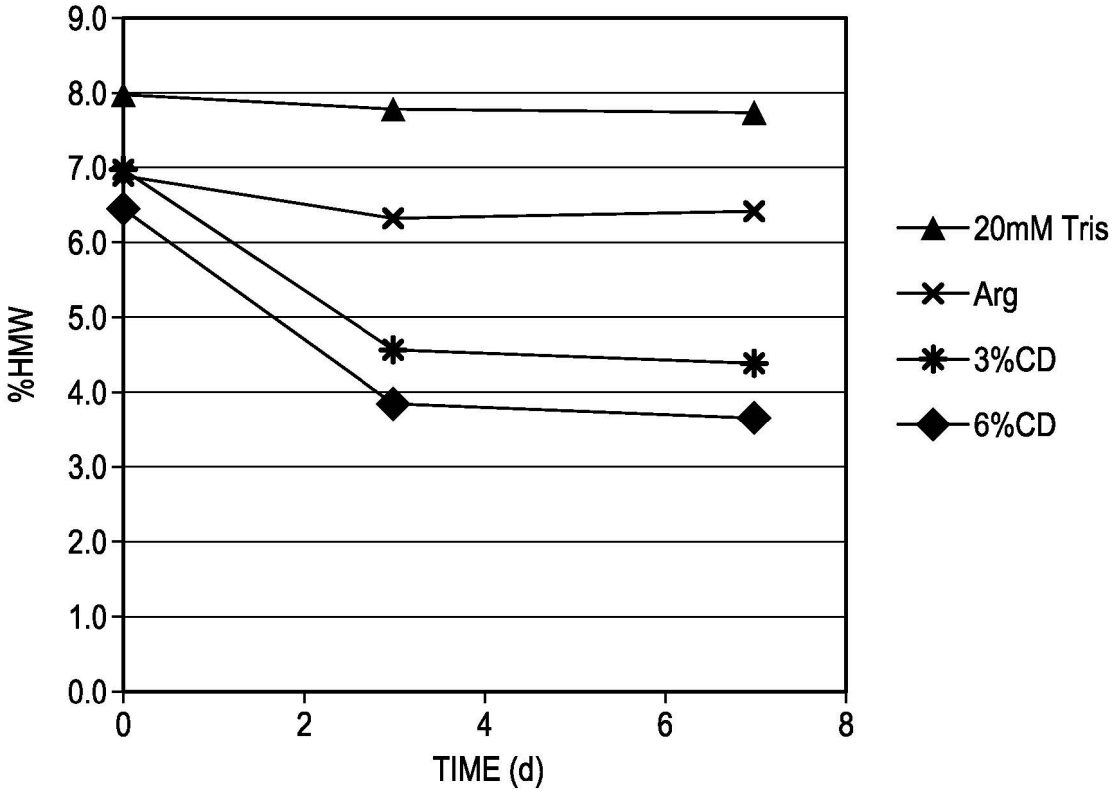

9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
%HMW
0
2
4
6
8
TIME (d)
20mM Tris
Arg
3%CD
6%CD

Fig. 3

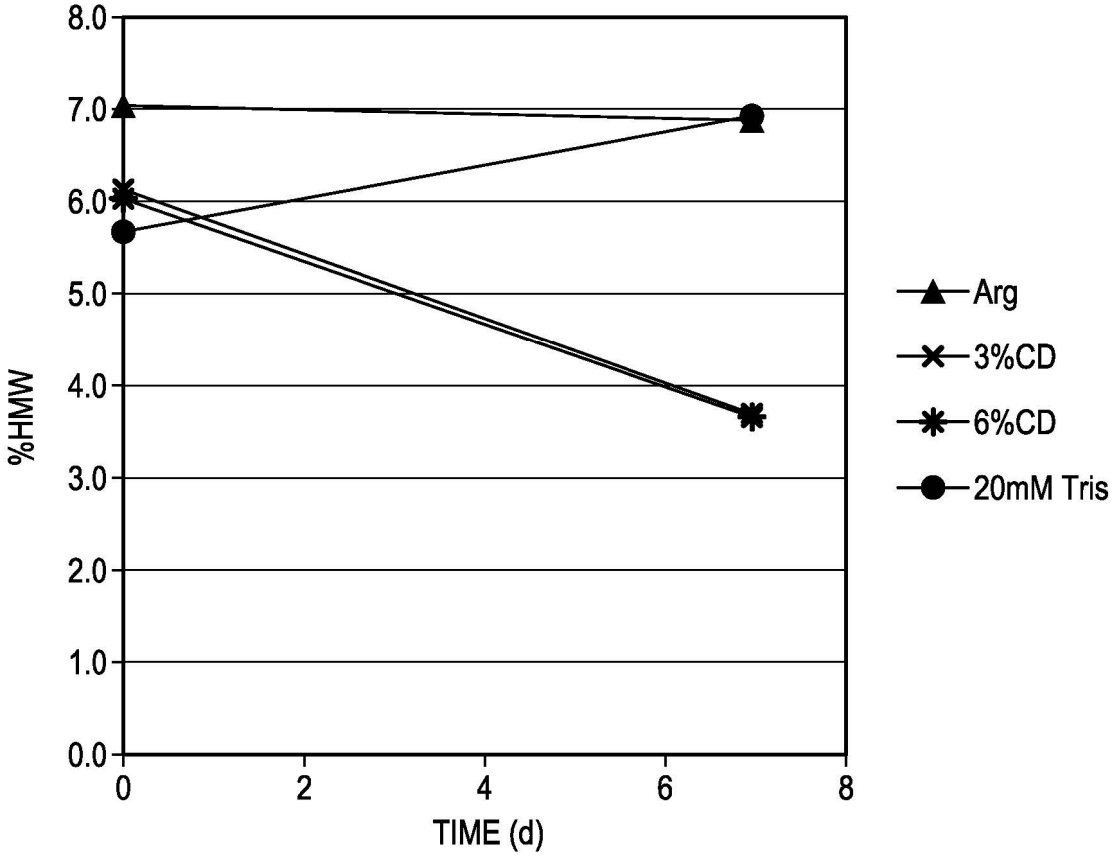

8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
%HMW
0
2
4
6
8
TIME (d)
Arg
3%CD
6%CD
20mM Tris

Fig. 4

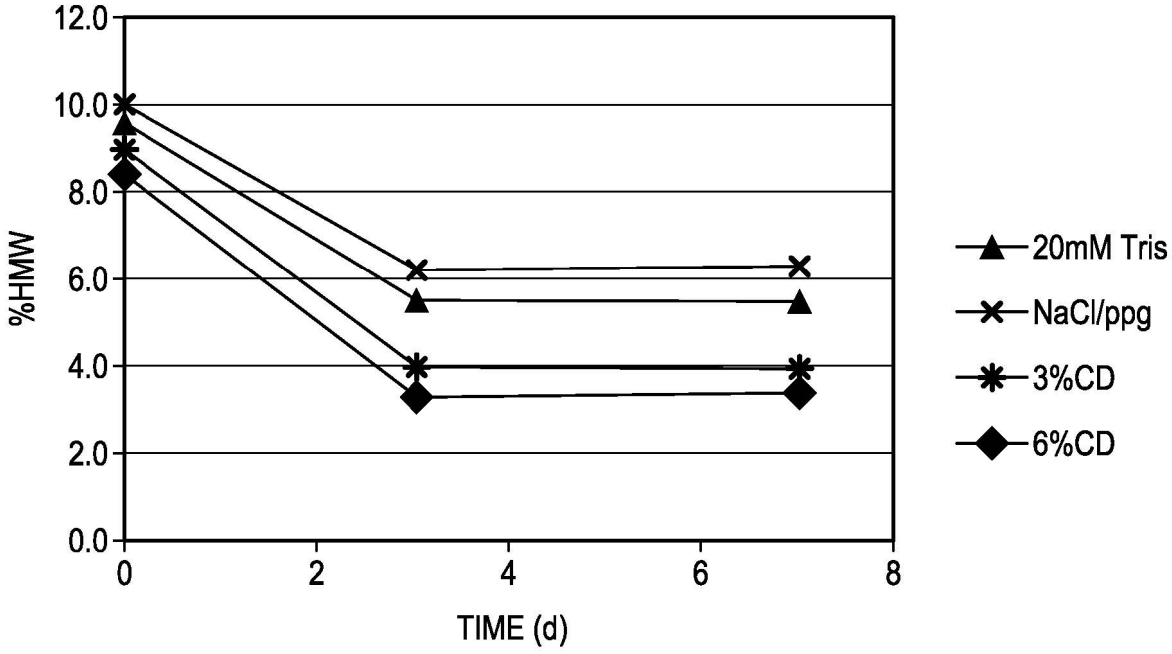

12.0
10.0
8.0
6.0
4.0
2.0
0.0
%HMW
0
2
4
6
8
TIME (d)
20mM Tris
NaCl/ppg
3%CD
6%CD

Fig. 5

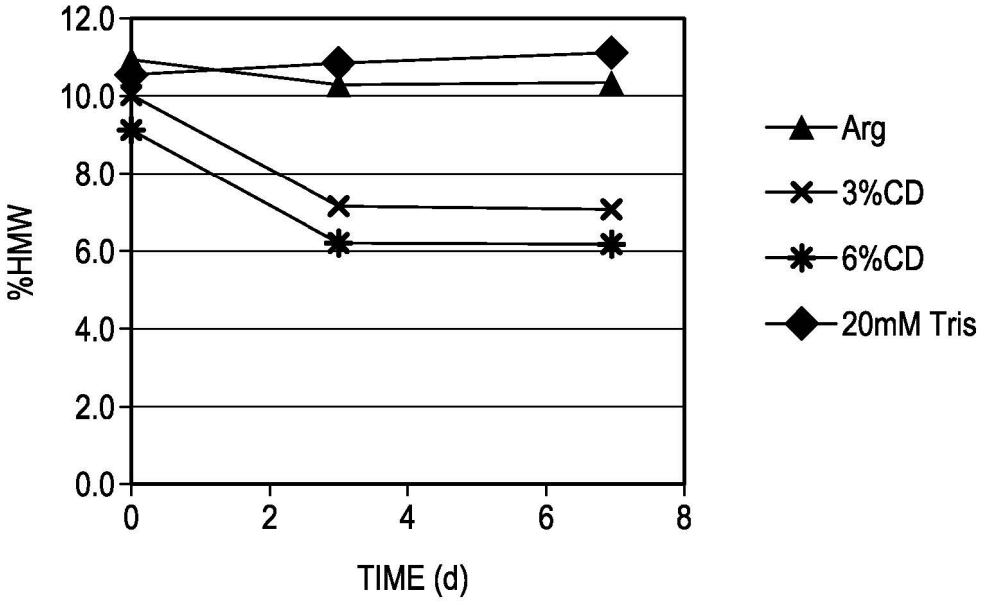

12.0
10.0
8.0
6.0
4.0
2.0
0.0
%HMW
0
2
4
6
8
TIME (d)
Arg
3%CD
6%CD
20mM Tris

Fig. 6

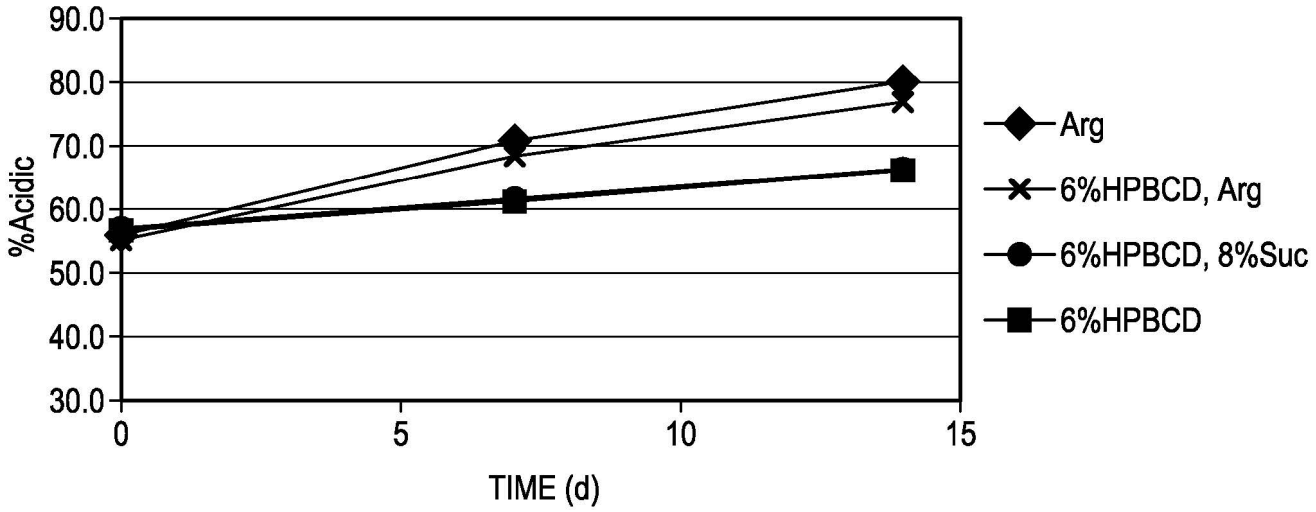

90.0
80.0
70.0
60.0
50.0
40.0
30.0
%Acidic
0
5
10
15
TIME (d)
Arg
6%HPBCD, Arg
6%HPBCD, 8%Suc
6%HPBCD

Fig. 7

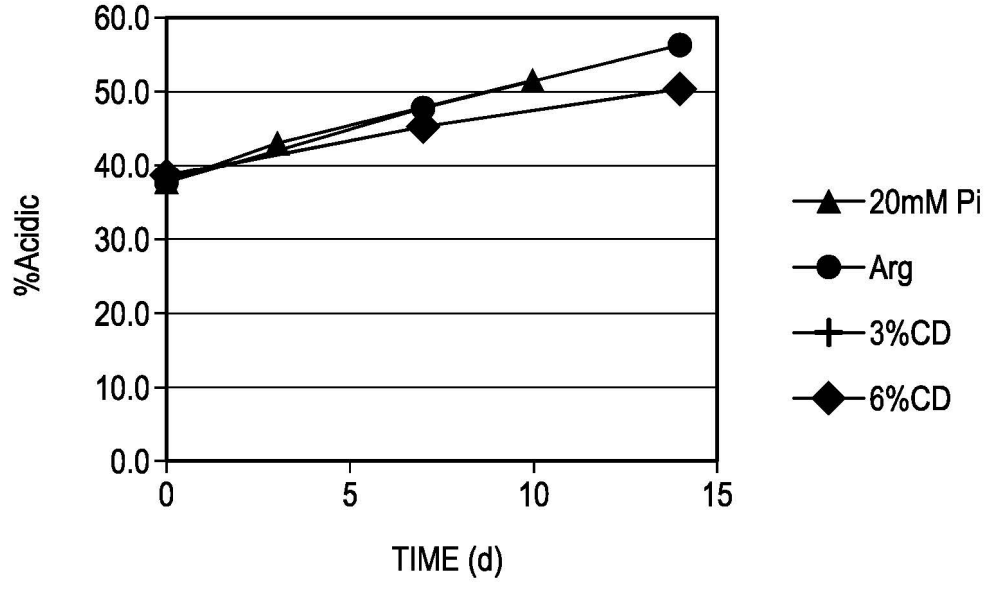

60.0
50.0
40.0
30.0
20.0
10.0
0.0
%Acidic
0
5
10
15
TIME (d)
20mM Pi
Arg
3%CD
6%CD

Fig. 8

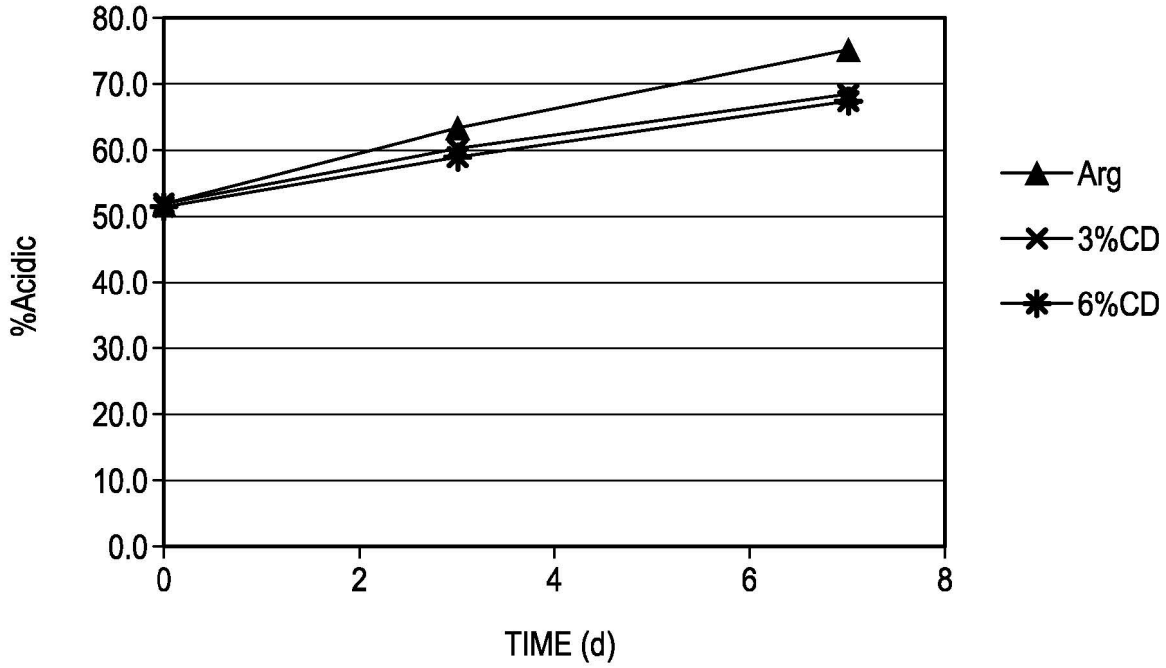

80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
%Acidic
0
2
4
6
8
TIME (d)
Arg
3%CD
6%CD

Fig. 9

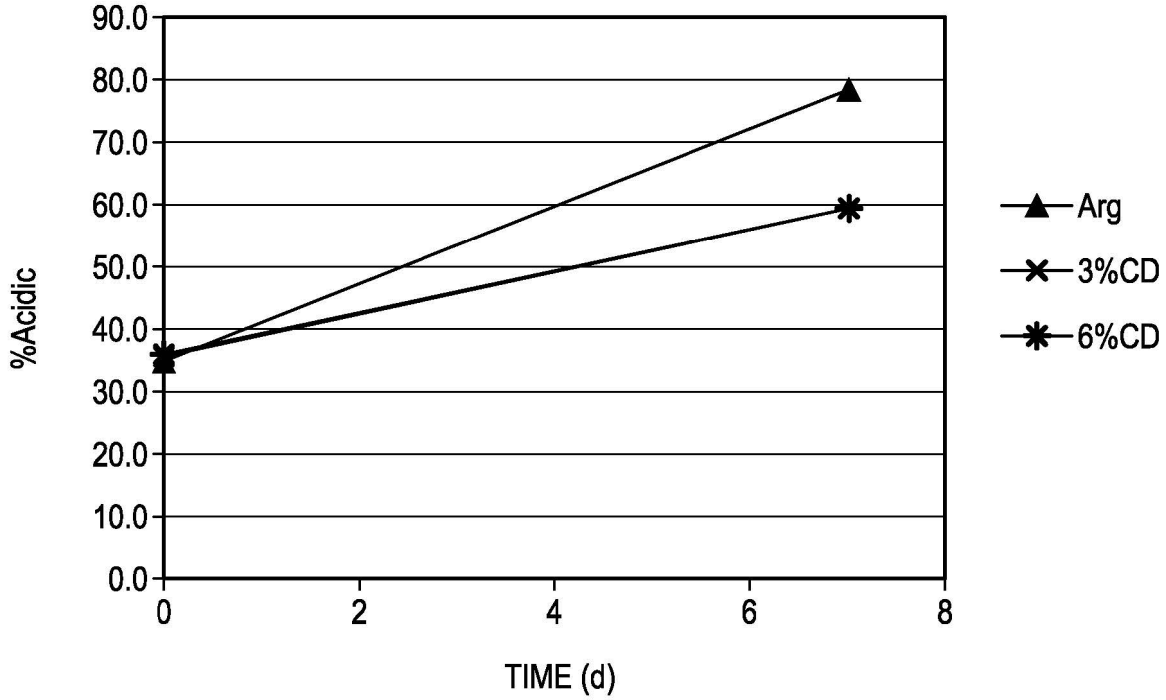

90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
%Acidic
0
2
4
6
8
TIME (d)
Arg
3%CD
6%CD

Fig. 10

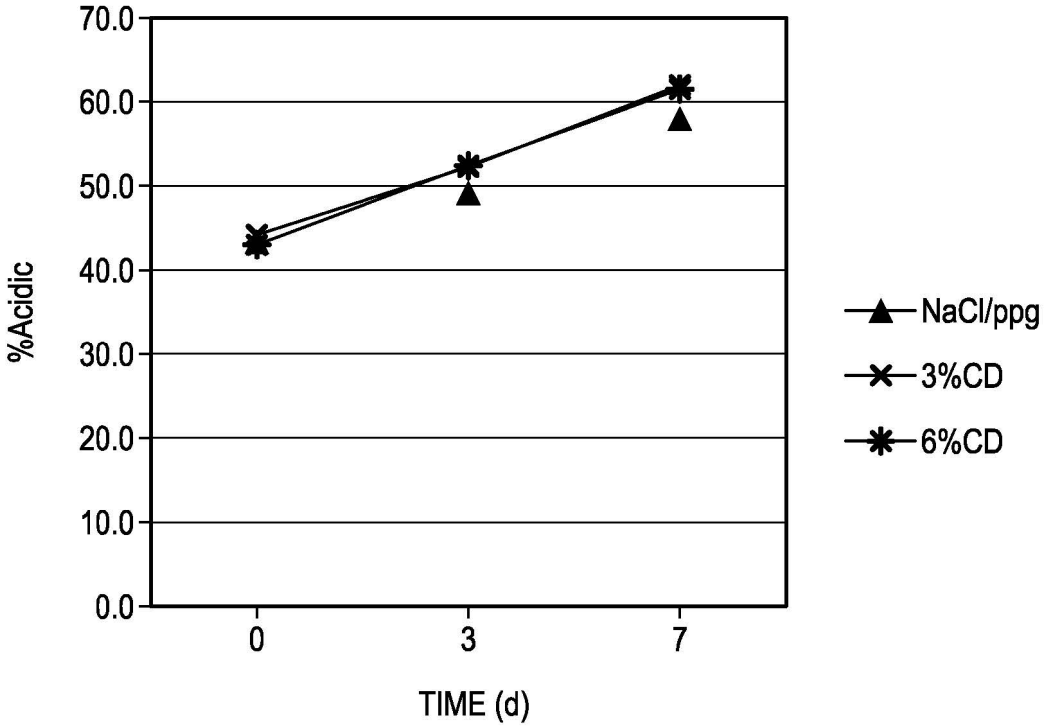

70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
%Acidic
0
3
7
TIME (d)
NaCl/ppg
3%CD
6%CD

Fig. 11

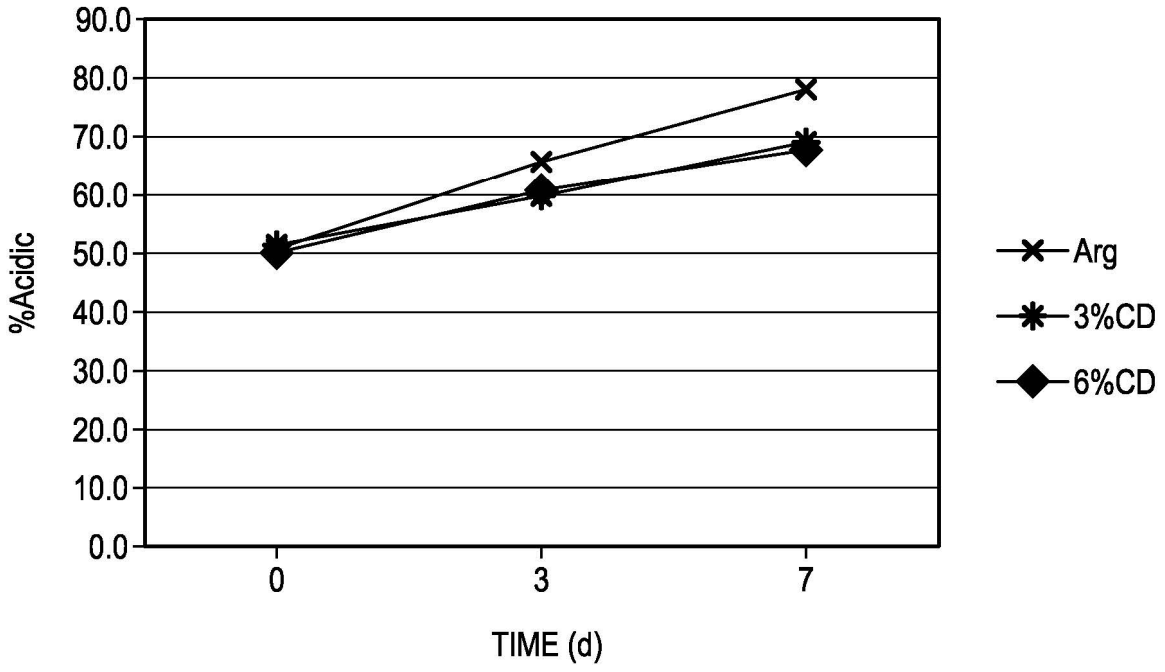
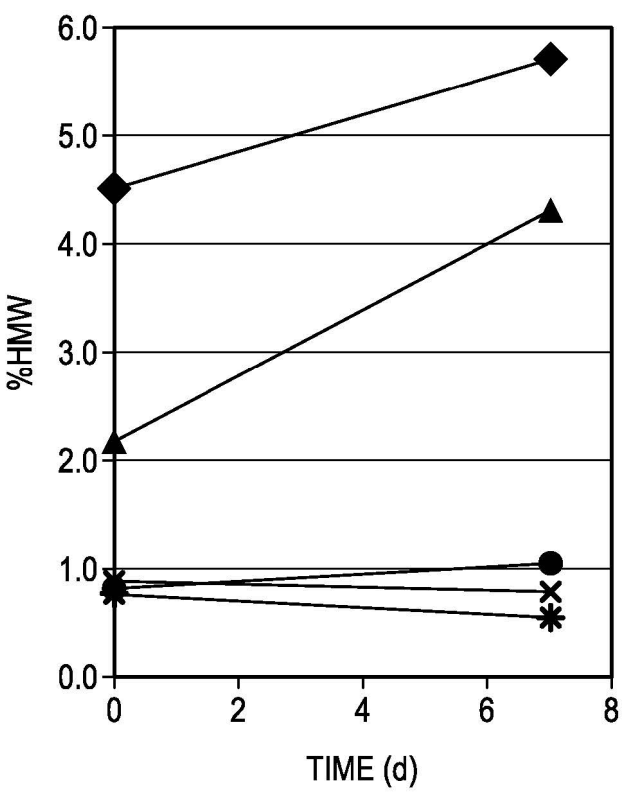

90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
%Acidic
0
3
7
TIME (d)
Arg
3%CD
6%CD

Fig. 12



25°C, HMW	0	7	change
Tris, 3mg/mL	4.5	5.7	1.2
0.5%CD, tris, 3mg/mL	2.2	4.3	2.1
6%CD, tris, 3mg/mL	0.9	0.8	-0.1
6%CD, tris, 1.3mg/mL	0.8	0.6	-0.2
2%CD, tris, 1.3mg/mL	0.8	1.0	0.2

Fig. 13

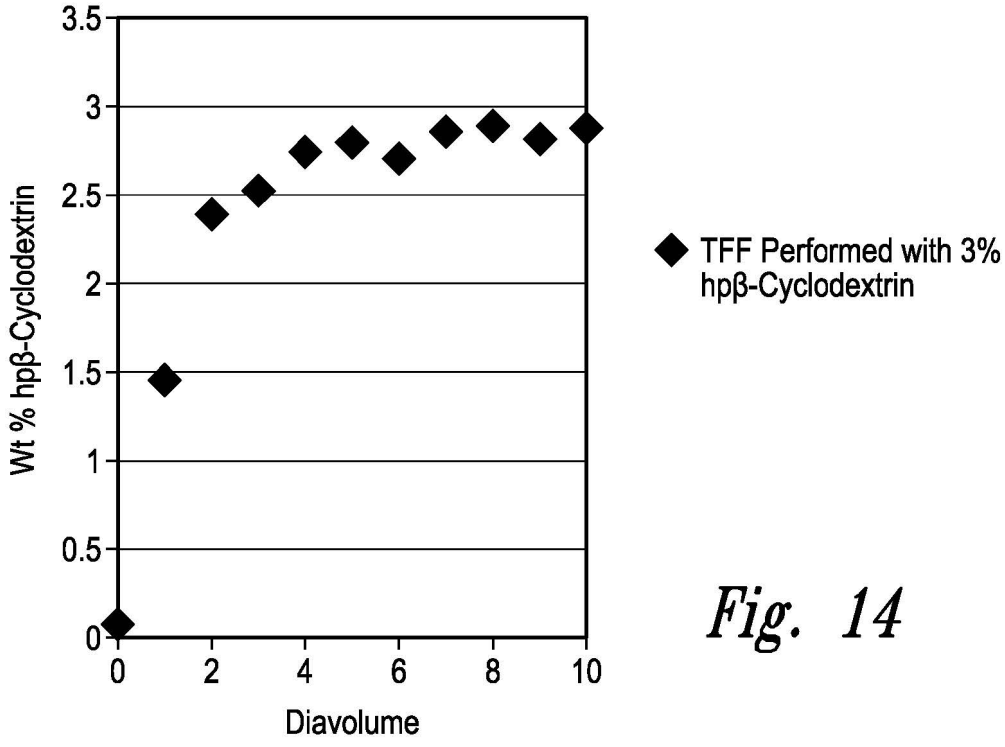


Fig. 14

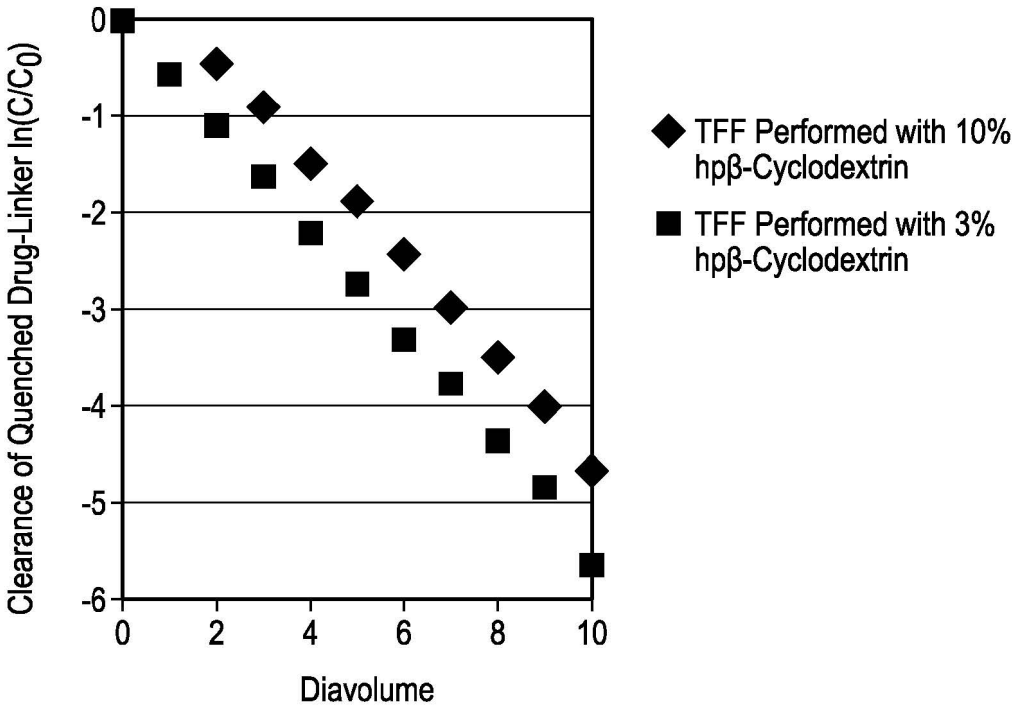

Clearance of Quenched Drug-Linker ln(C/C0)
0
-1
-2
-3
-4
-5
-6
0
2
4
6
8
10
Diavolume
TFF Performed with 10% hpβ-Cyclodextrin
TFF Performed with 3% hpβ-Cyclodextrin

Fig. 15

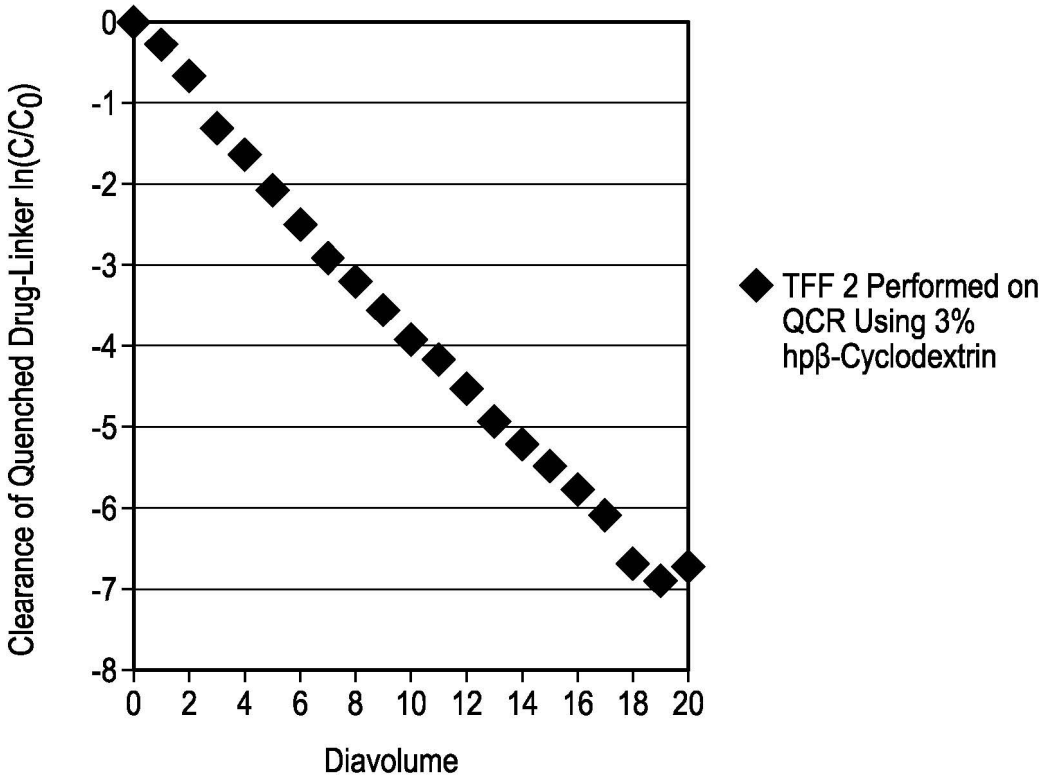

Clearance of Quenched Drug-Linker ln(C/C0)
0
-1
-2
-3
-4
-5
-6
-7
-8
0
2
4
6
8
10
12
14
16
18
20
Diavolume
TFF 2 Performed on QCR Using 3% hpβ-Cyclodextrin

Fig. 16

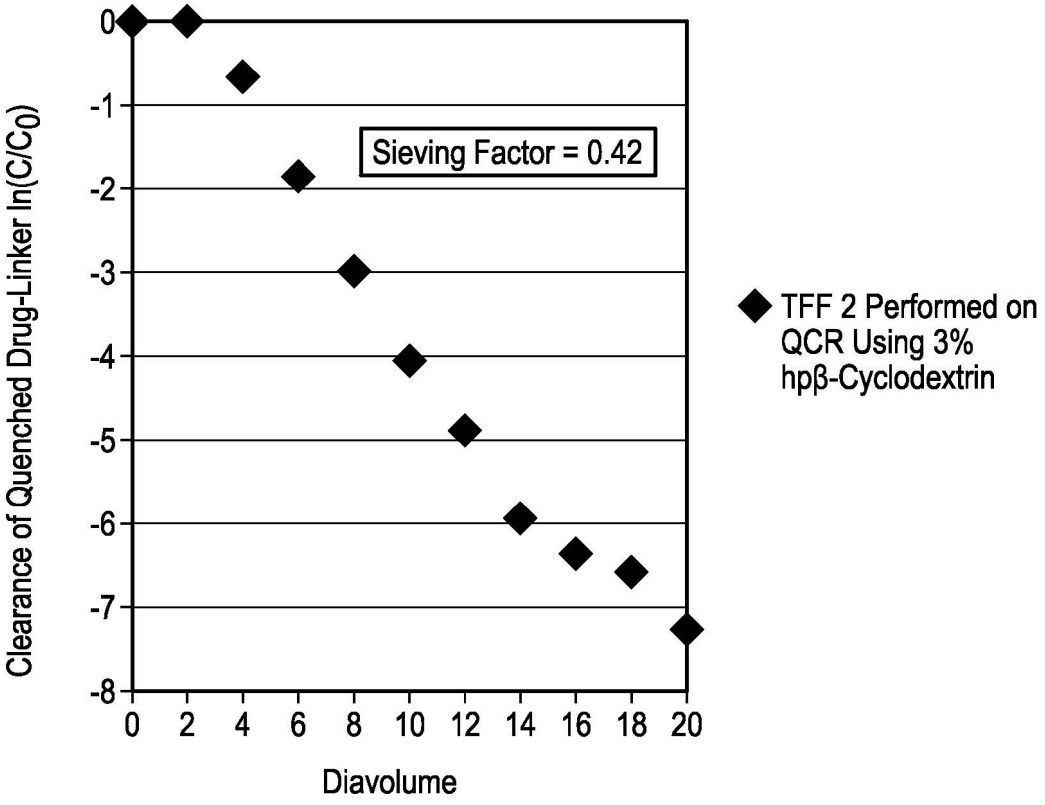

Clearance of Quenched Drug-Linker ln(C/C0)
0
-1
-2
-3
-4
-5
-6
-7
-8
0 2 4 6 8 10 12 14 16 18 20
Diavolume
Sieving Factor = 0.42
TFF 2 Performed on QCR Using 3% hpβ-Cyclodextrin

Fig. 17

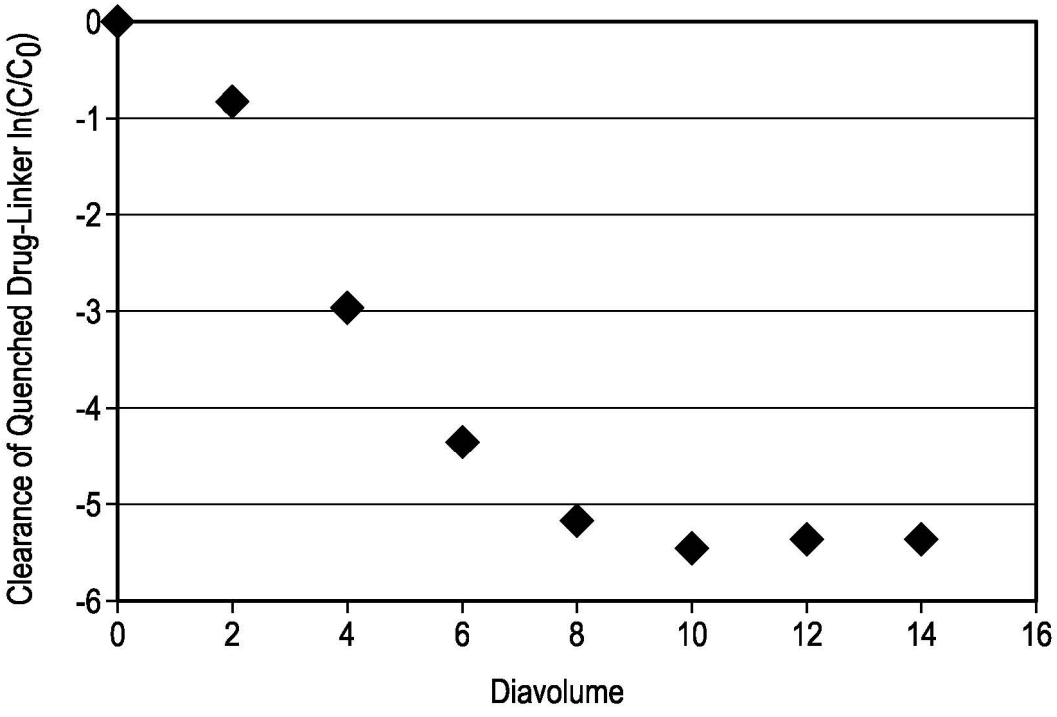

Clearance of Quenched Drug-Linker ln(C/C0)
0
-1
-2
-3
-4
-5
-6
0 2 4 6 8 10 12 14 16
Diavolume

Fig. 18

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<130> PBD-00812PC

<150> 61/780,185
<151> 2013-03-13

<150> 61/782,231
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Glu Arg Val Ile Ile Asn Cys Lys Ala Ser Gln Asp Ile Asn Ser Tyr
20 25 30

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

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

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

Glu Asp Met Gly Ile Tyr Tyr Cys Leu Gln Tyr Asp Glu Phe Pro Leu
85 90 95

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

<210> 2
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<223> Murine 2H12 VH

<400> 2

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

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

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

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

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

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

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

Val Thr Val Ser Ser
        115
```

<210> 3
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<212> PRT
<213> Artificial

<220>
<223> Humanized 2H12 VL

<400> 3

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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 Asn Cys Lys Ala Ser Gln Asp Ile Asn Ser Tyr
            20                  25                  30

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

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

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

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

Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
            100                 105
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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 Asn Tyr
            20                  25                  30

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

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

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

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

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

Val Thr Val Ser Ser
        115
```

<210> 5
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<400> 5

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1 5 10

<210> 6
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<220>
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<400> 6

Arg Ala Asn Arg Leu Val Asp
1 5

<210> 7
<211> 9
<212> PRT
<213> Artificial

<220>
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<400> 7

Leu Gln Tyr Asp Glu Phe Pro Leu Thr
1 5

<210> 8
<211> 5
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<400> 8

Asn Tyr Asp Ile Asn
1 5

<210> 9
<211> 17
<212> PRT
<213> Artificial

<220>
<223> 2H12 CDR-H2

<400> 9

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

Ala

<210> 10
<211> 8
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<223> 2H12 CDR-H3

<400> 10

Gly Tyr Glu Asp Ala Met Asp Tyr
1 5

<210> 11
<211> 112
<212> PRT
<213> Artificial

<220>
<223> Murine 1F6 VH

<400> 11

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 Thr Ser
20 25 30

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

Lys Leu Leu Ile Tyr Leu Ala Ser Asn Leu Glu 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 Glu Glu Asp Ala Ala Thr Tyr Tyr Cys Gln His Ser Arg
85 90 95

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

<210> 12
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<213> Artificial

<220>
<223> Murine 1F6 VH

<400> 12

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1               5                   10                  15

Thr Val Lys Ile Ser Cys Lys Ala Ser Gly Tyr 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 Thr Gly Glu Pro Thr Tyr Ala Asp Ala Phe
    50                  55                  60

Lys Gly Arg Phe Ala 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 Thr Ala Thr Tyr Phe Cys
                85                  90                  95

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

Ser Val Thr Val Ser Ser
        115


<210>  13
<211>  112
<212>  PRT
<213>  Artificial

<220>
<223>  Humanized 1F6 VL

<400>  13

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

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

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

Lys Leu Leu Ile Tyr Leu Ala Ser Asn Leu Glu Ser Gly Val Pro Asp
    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 Gln Ala Glu Asp Val Ala Val Tyr Tyr Cys Gln His Ser Arg
```

85 90 95

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

<210> 14
<211> 118
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<400> 14

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1 5 10 15

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

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

Gly Trp Ile Asn Thr Tyr Thr Gly Glu Pro Thr Tyr Ala Asp Ala 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 Asp Tyr Gly Asp Tyr Gly Met Asp Tyr Trp Gly Gln Gly Thr
100 105 110

Thr Val Thr Val Ser Ser
115

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

<220>
<223> 1F6 CDR-L1

<400> 15

Arg Ala Ser Lys Ser Val Ser Thr Ser Gly Tyr Ser Phe Met His
1 5 10 15

<210> 16
<211> 7
<212> PRT
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<220>
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<400> 16

Leu Ala Ser Asn Leu Glu Ser
1 5

<210> 17
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Gln His Ser Arg Glu Val Pro Trp Thr
1 5

<210> 18
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Asn Tyr Gly Met Asn
1 5

<210> 19
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Trp Ile Asn Thr Tyr Thr Gly Glu Pro Thr Tyr Ala Asp Ala Phe Lys
1 5 10 15

Gly

<210> 20
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<220>
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Asp Tyr Gly Asp Tyr Gly Met Asp Tyr
1 5

<210> 21
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<223> Human light chain constant region

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Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln
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Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr
20 25 30

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

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

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

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

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

<210> 22
<211> 329
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<223> Human heavy chain constant region (no C-term K)

<400> 22

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

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

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

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

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

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

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

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

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

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

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

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

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

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

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

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

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

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

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

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

Gln Lys Ser Leu Ser Leu Ser Pro Gly
                325
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<210> 23
<211> 329
<212> PRT
<213> Artificial

<220>
<223> Human heavy chain constant region, S239C (no C-term K)

<400> 23

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1               5                   10                  15

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            20                  25                  30

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

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

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

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

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

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

Lys Pro Lys Asp Thr Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys
    130                 135                 140
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Val Val Val Asp Val Ser His Glu Asp Pro Glu Val Lys Phe Asn Trp
145                 150                 155                 160

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

Glu Gln Tyr Asn Ser Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu
            180                 185                 190

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

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

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

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

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

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

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

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

Gln Lys Ser Leu Ser Leu Ser Pro Gly
                325
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