Figure 1:

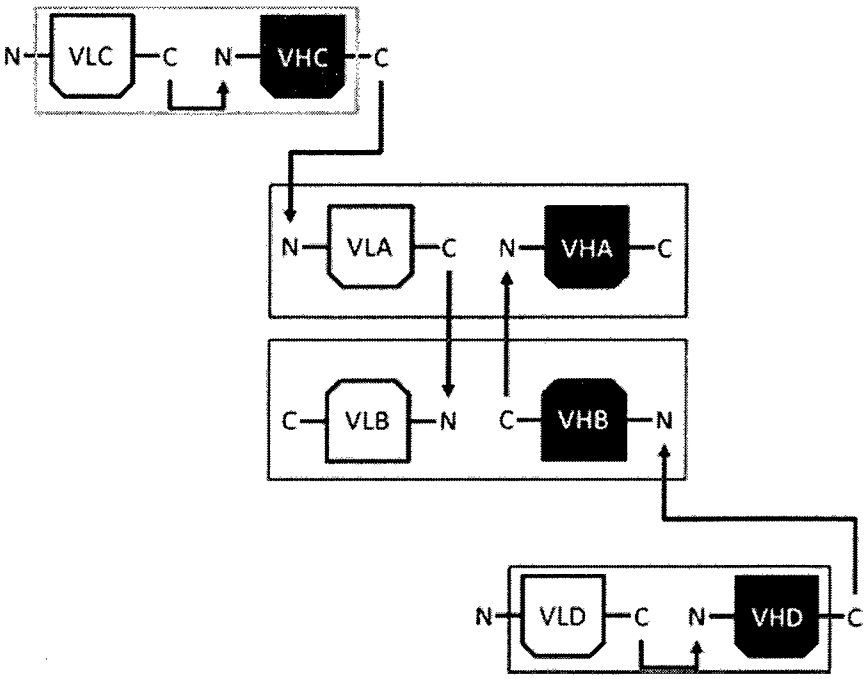


Figure 2:

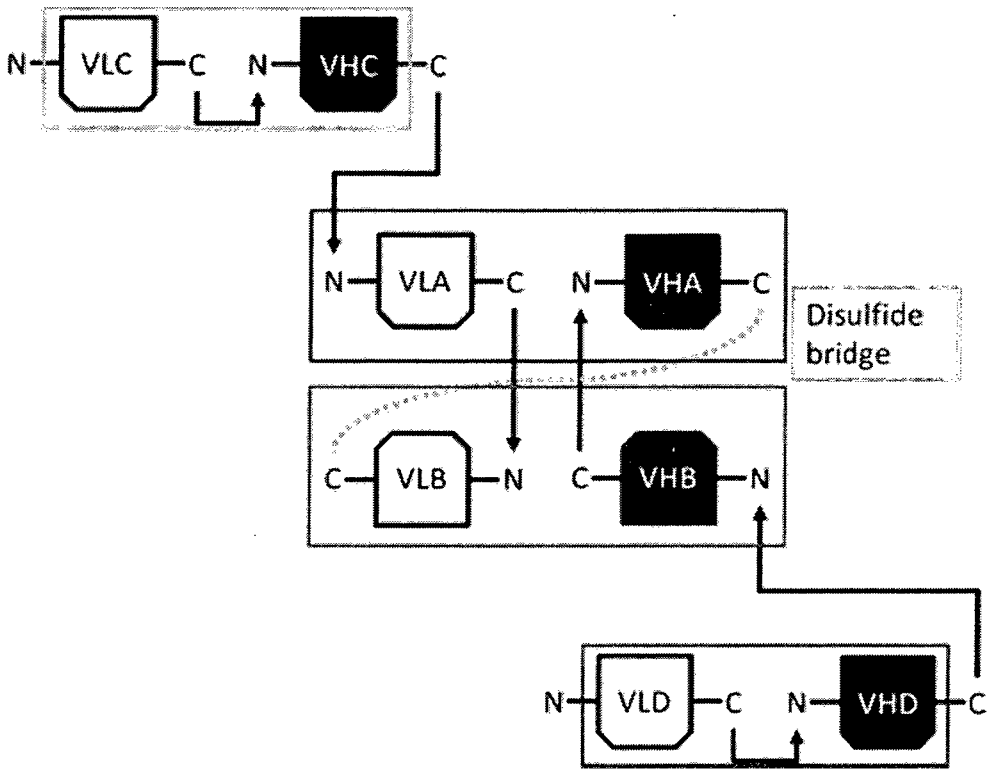

N
VLC
C
N
VHC
C
N
VLA
C
N
VHA
C
Disulfide bridge
C
VLB
N
C
VHB
N
N
VLD
C
N
VHD
C

Figure 3:

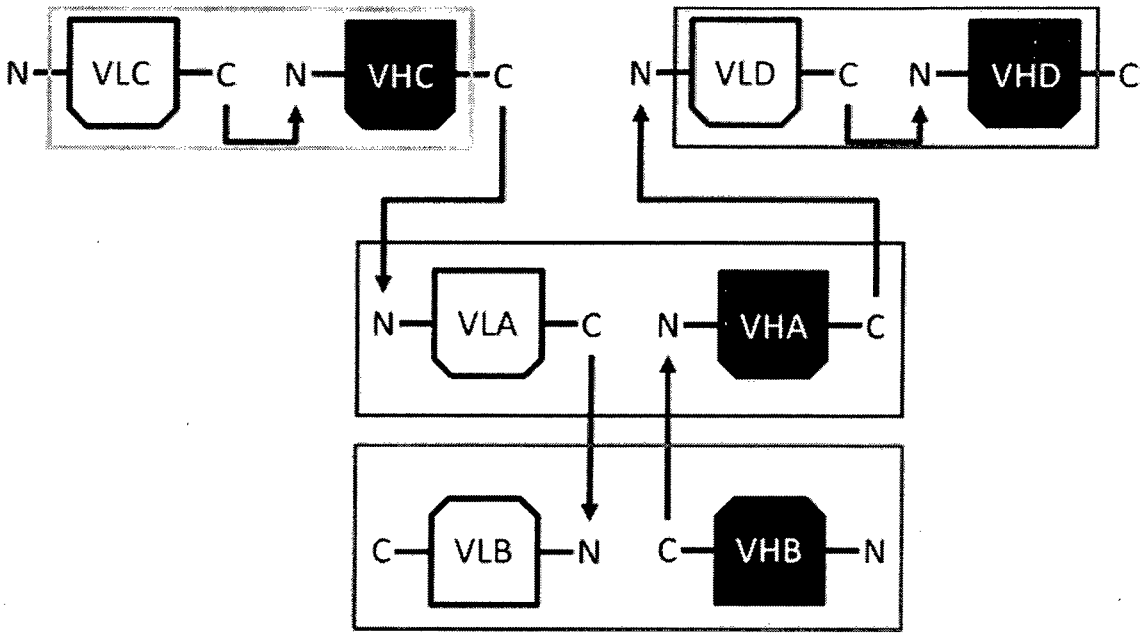


Figure 4:

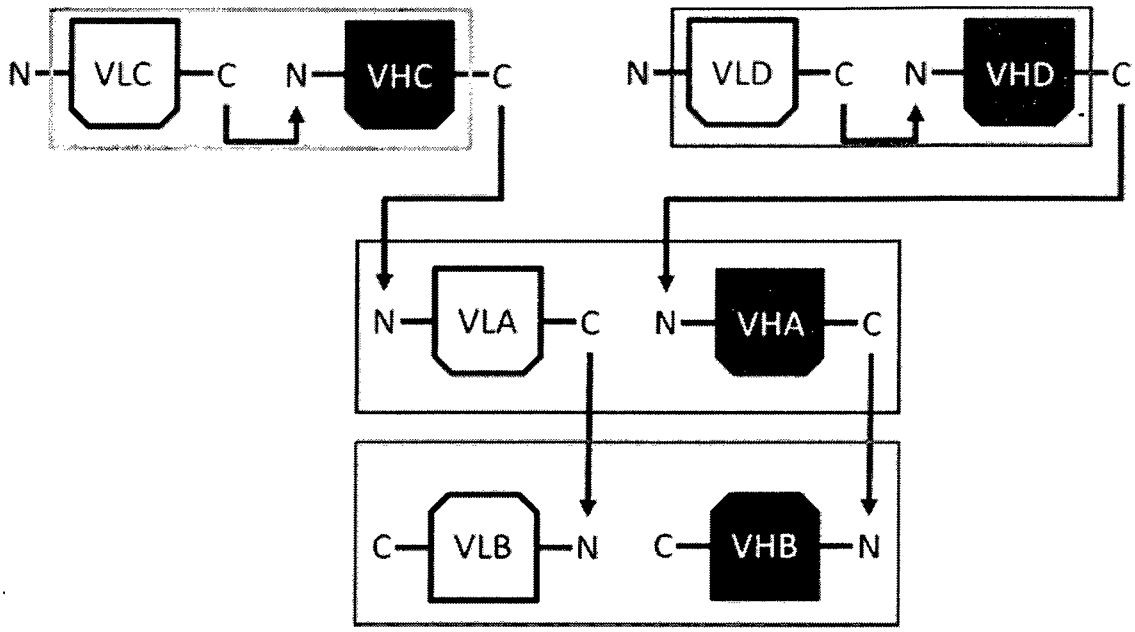
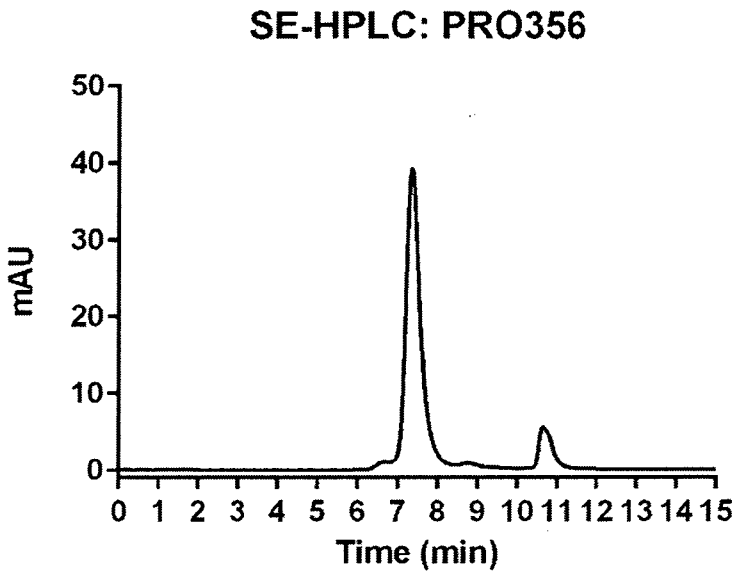
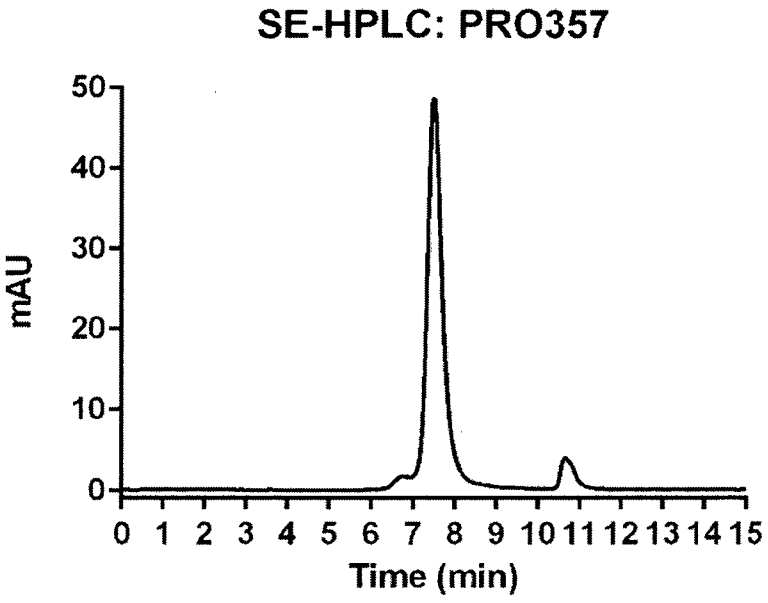


Figure 5:

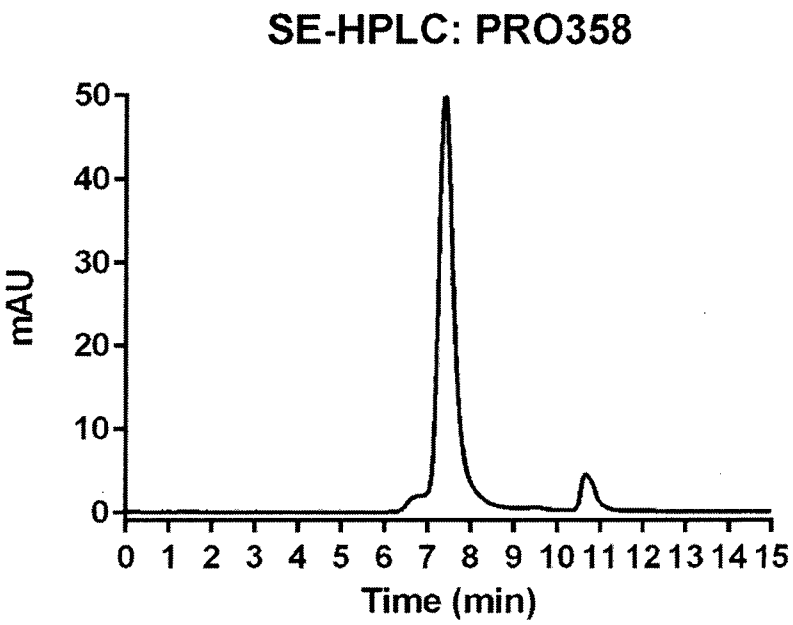
A:


SE-HPLC: PRO356
mAU
50
40
30
20
10
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Time (min)

B:


SE-HPLC: PRO357
mAU
50
40
30
20
10
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Time (min)

C:


SE-HPLC: PRO358
mAU
50
40
30
20
10
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Time (min)

D:

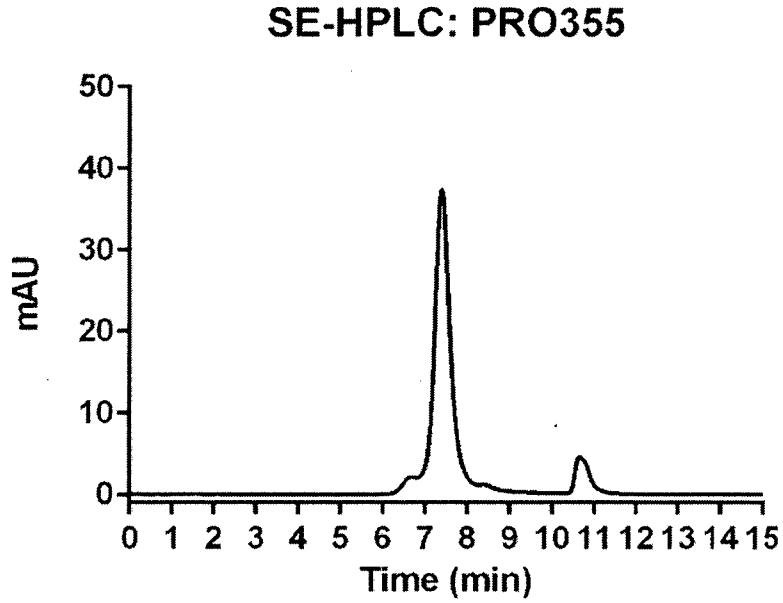
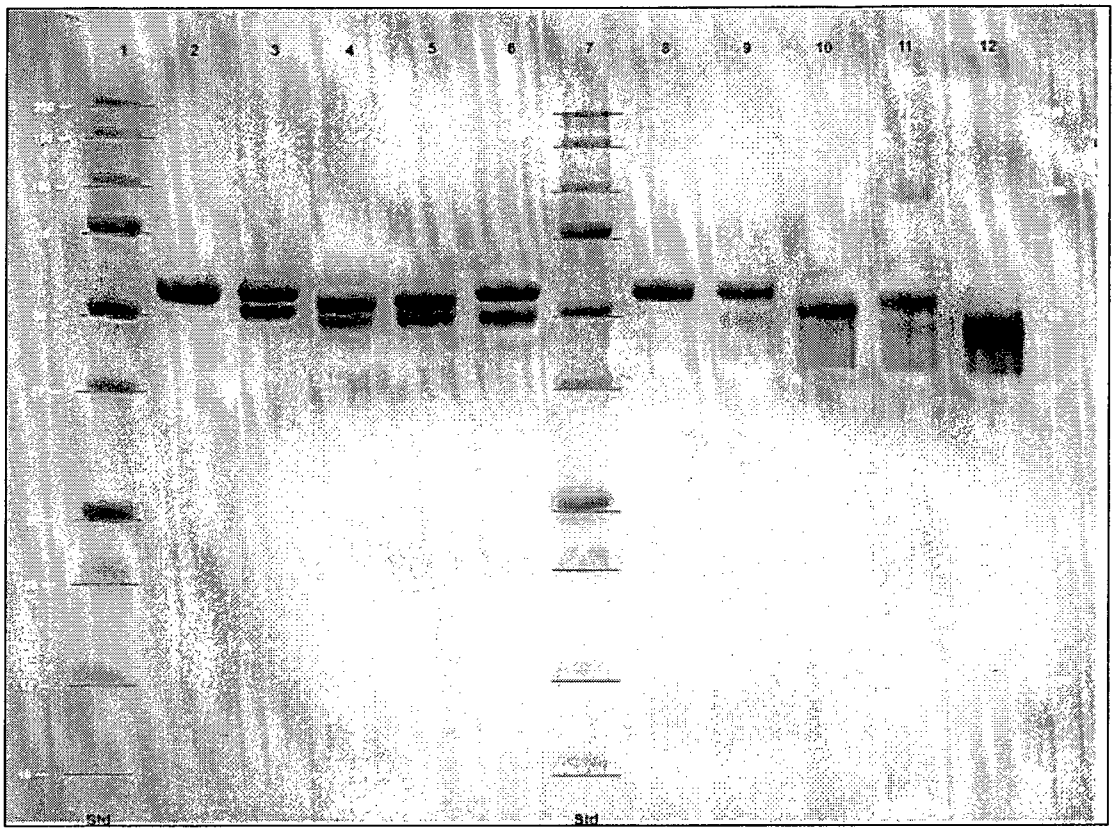
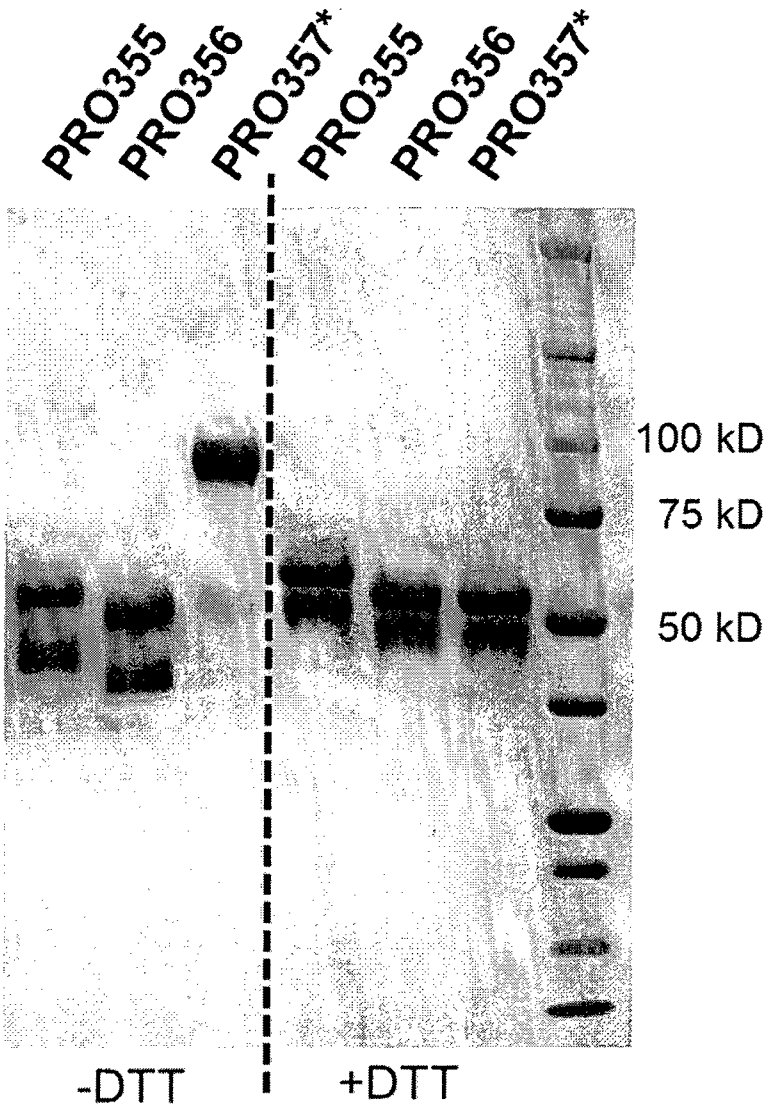

SE-HPLC: PRO355
mAU
50
40
30
20
10
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Time (min)

Figure 6:

A



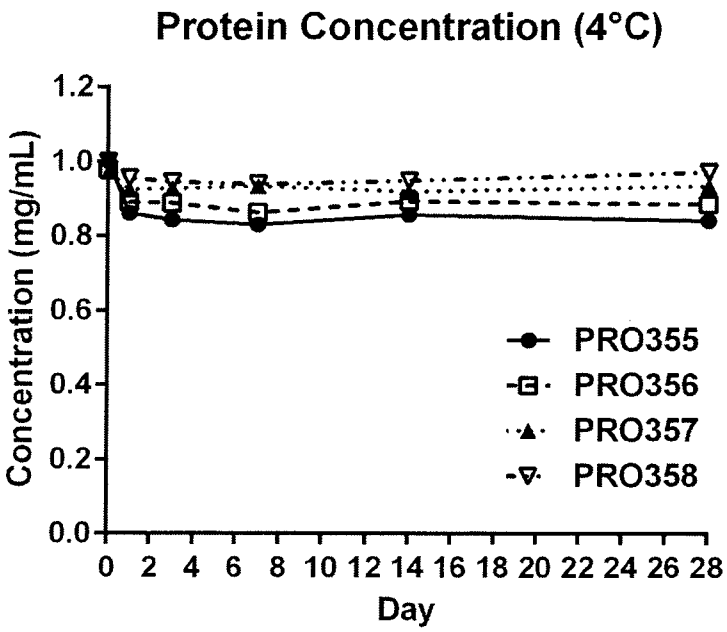
B:



*Contains inter-chain disulfide bridge

Figure 7:

A:


Protein Concentration (4°C)
Concentration (mg/mL)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Day
PRO355
PRO356
PRO357
PRO358

B:

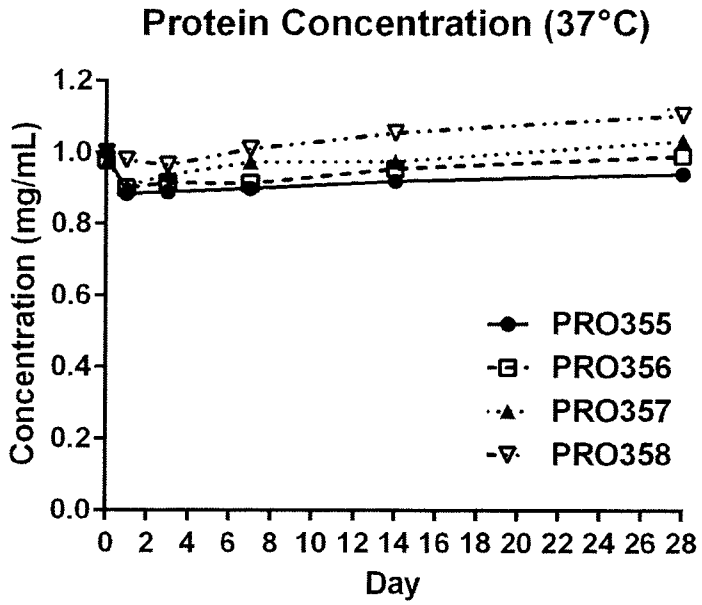
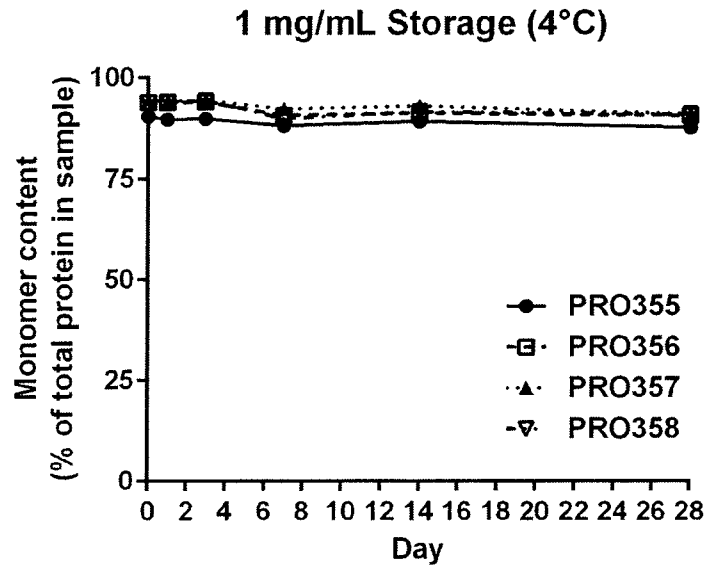

Protein Concentration (37°C)
Concentration (mg/mL)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Day
PRO355
PRO356
PRO357
PRO358

Figure 8:

A:


1 mg/mL Storage (4°C)
Monomer content
(% of total protein in sample)
100
75
50
25
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Day
PRO355
PRO356
PRO357
PRO358

B:

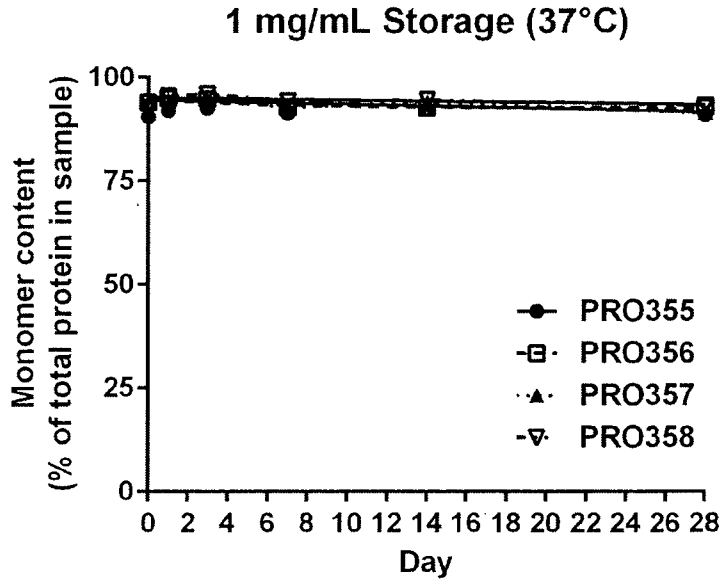

1 mg/mL Storage (37°C)
Monomer content
(% of total protein in sample)
100
75
50
25
0
0 2 4 6 8 10 12 14 16 18 20 22 24 26 28
Day
PRO355
PRO356
PRO357
PRO358

Figure 9:

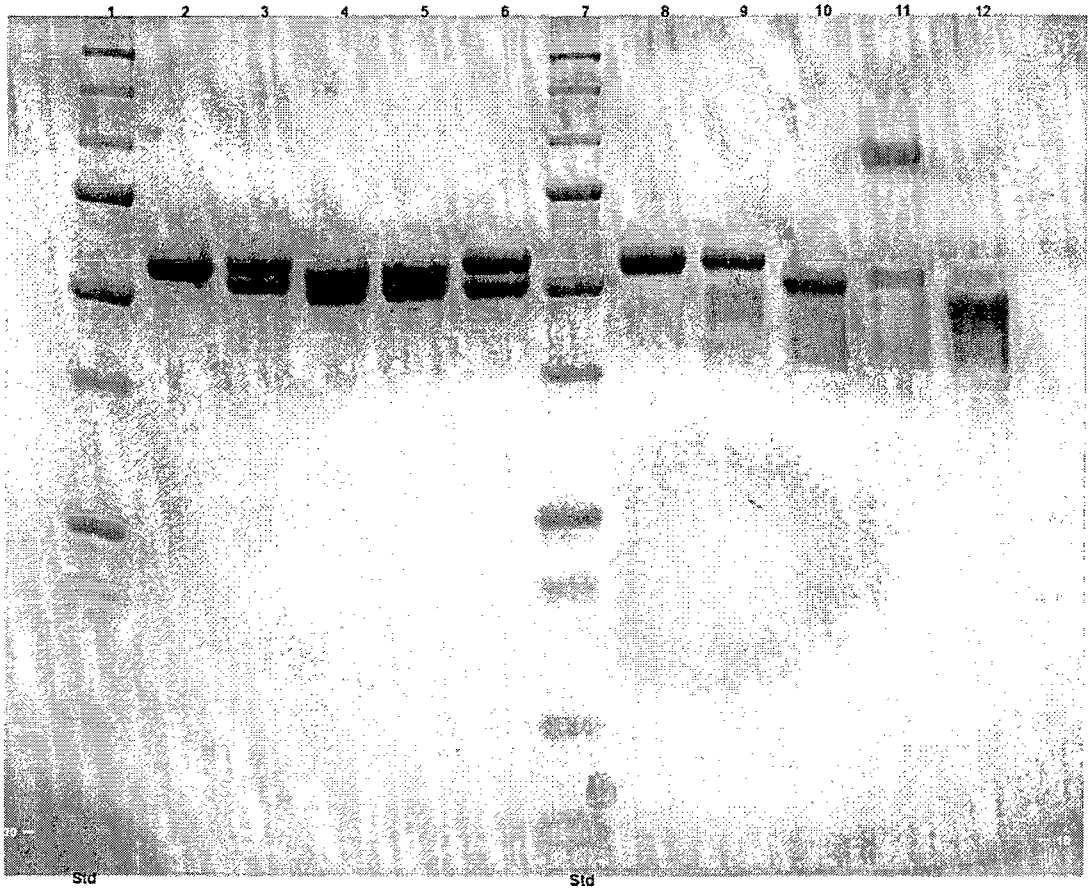
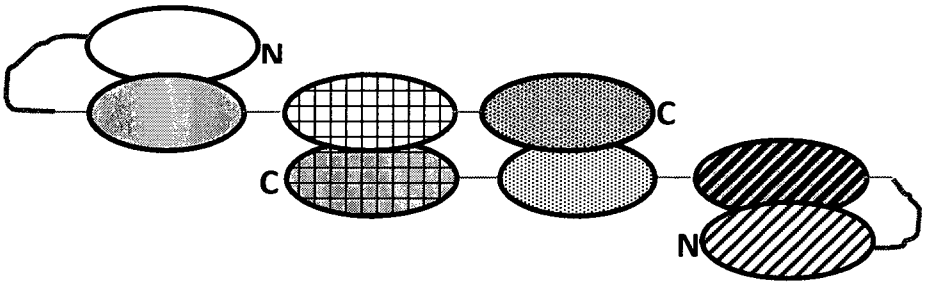
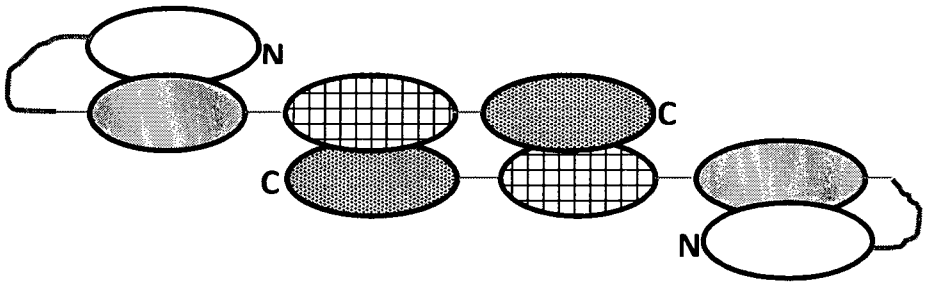


FIGURE 10:

A:



B:



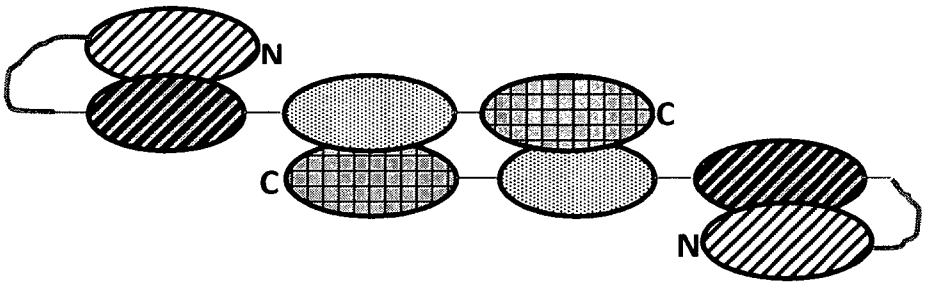
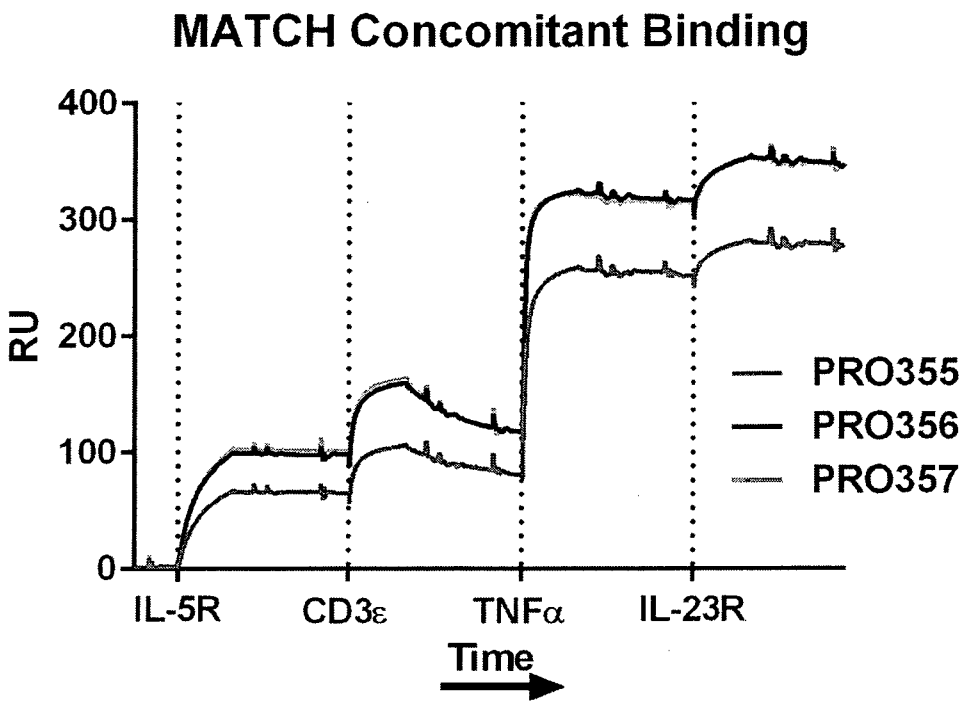
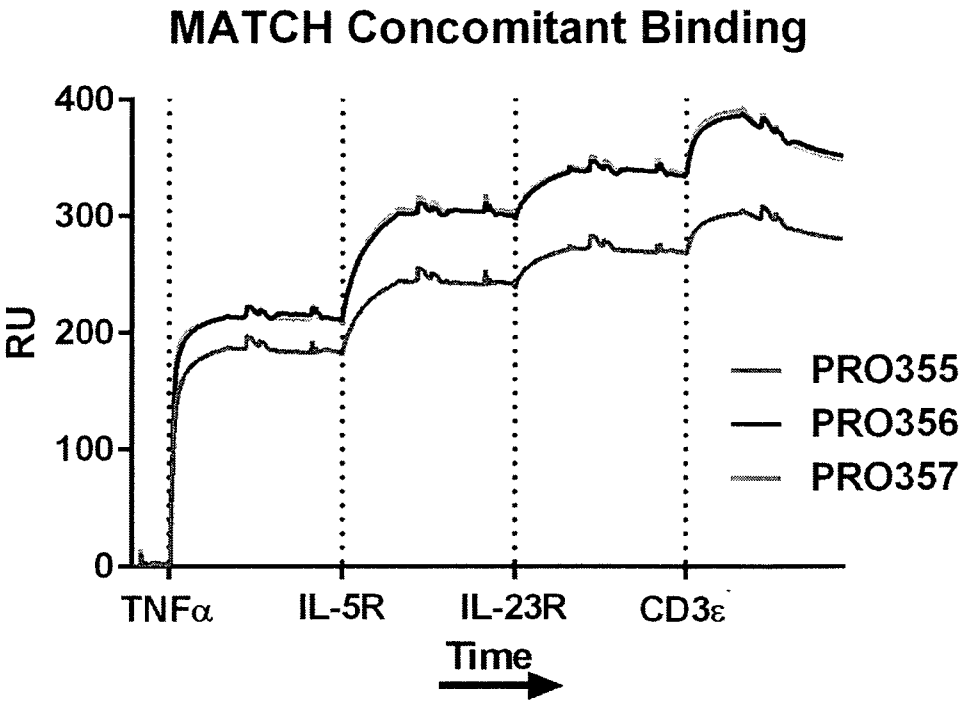
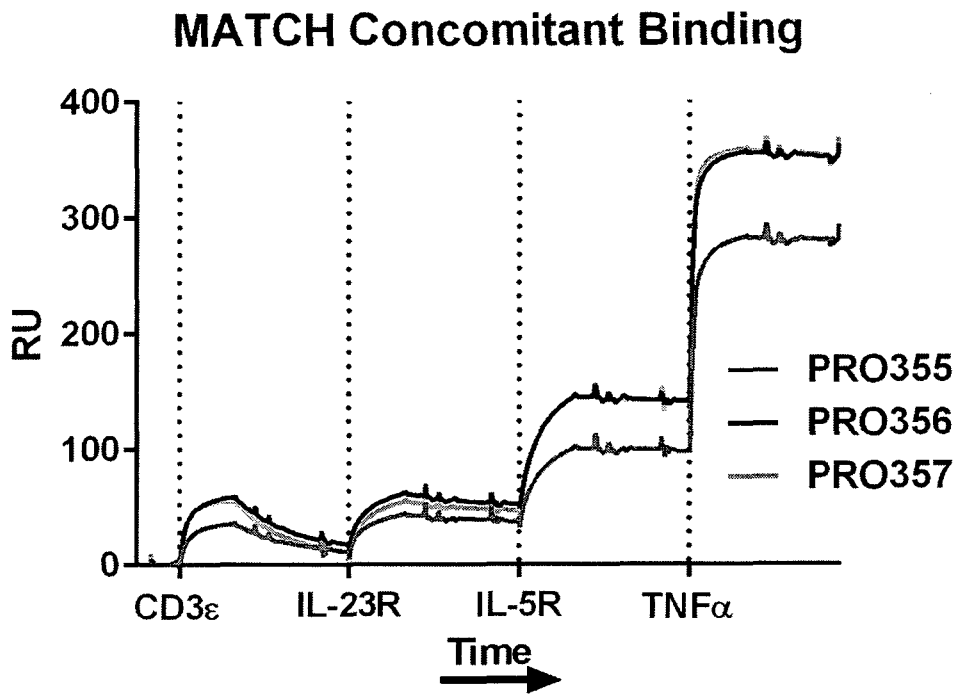


FIGURE 11:


MATCH Concomitant Binding
400
300
200
100
0
RU
PRO355
PRO356
PRO357
IL-5R
CD3ε
TNFα
IL-23R
Time


MATCH Concomitant Binding
400
300
200
100
0
RU
PRO355
PRO356
PRO357
TNFα
IL-5R
IL-23R
CD3ε
Time


MATCH Concomitant Binding
400
300
200
100
0
RU
CD3ε
IL-23R
IL-5R
TNFα
Time
PRO355
PRO356
PRO357

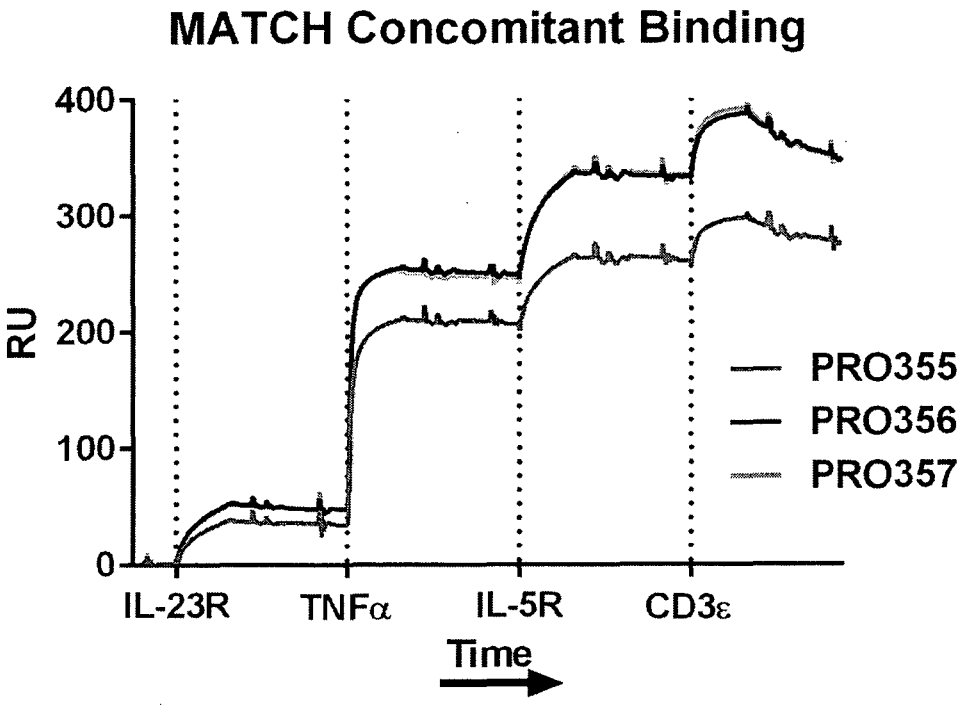
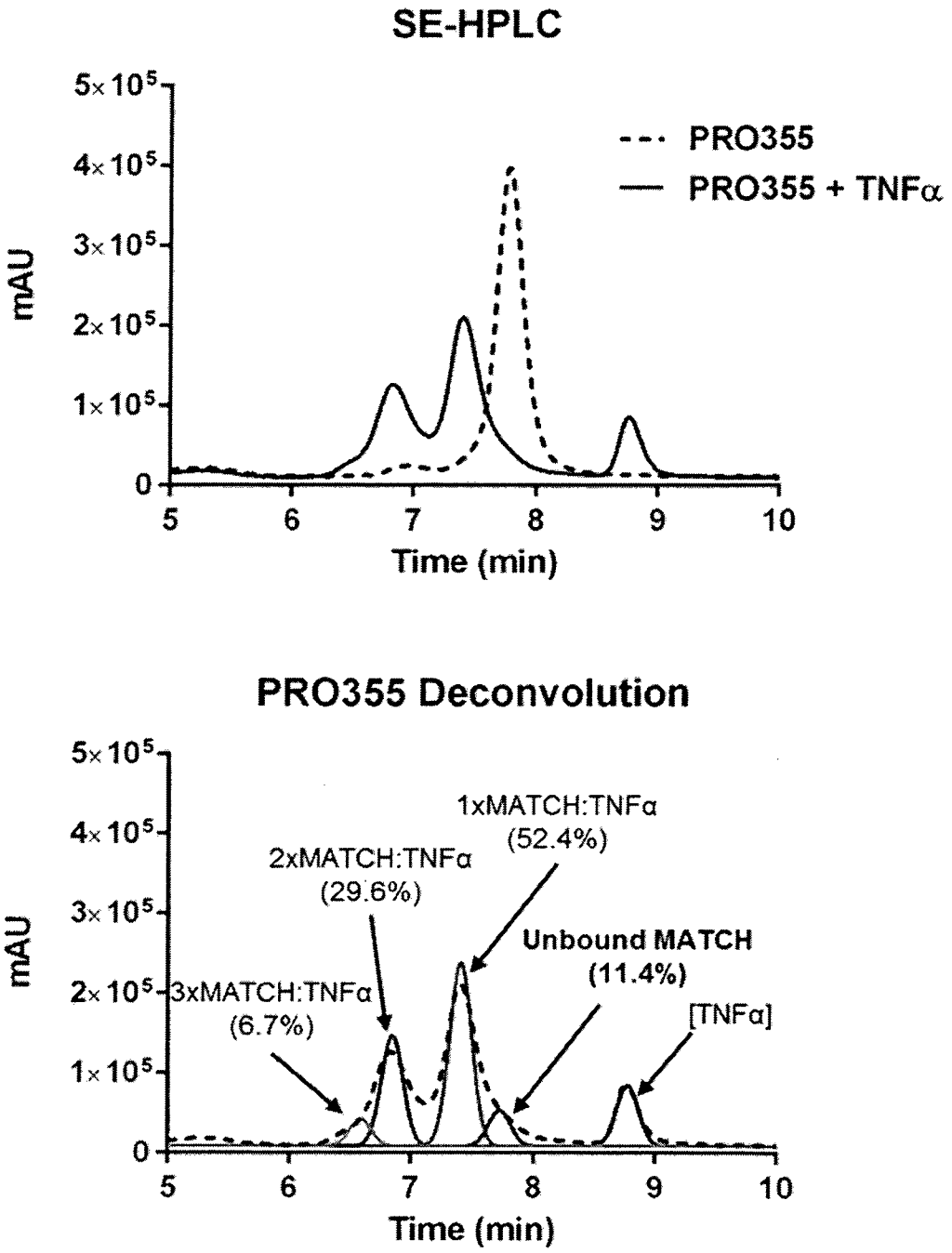
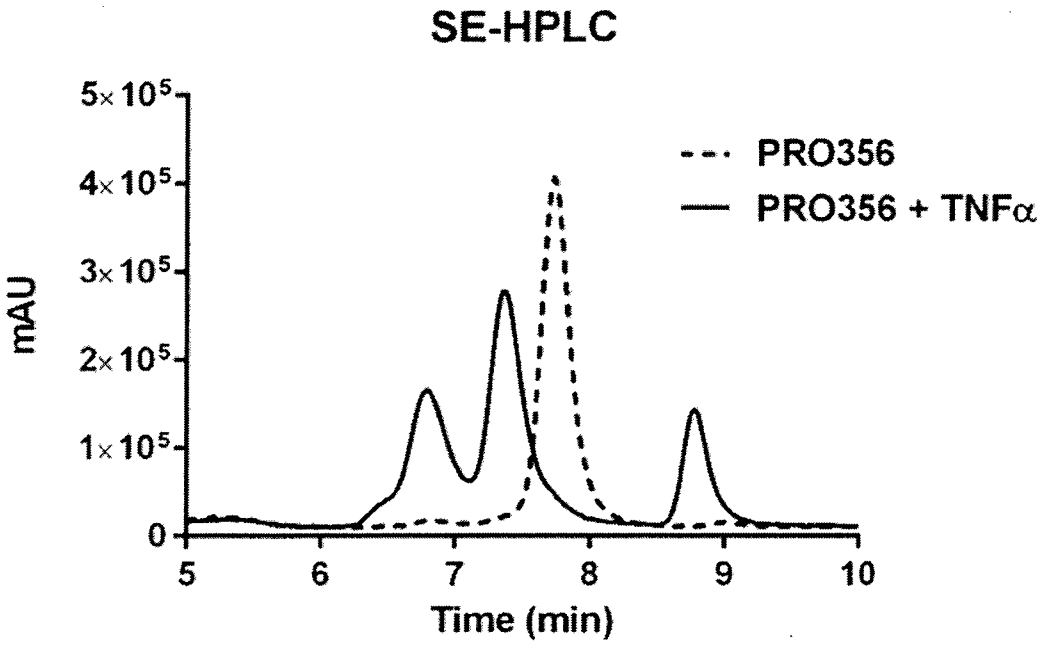
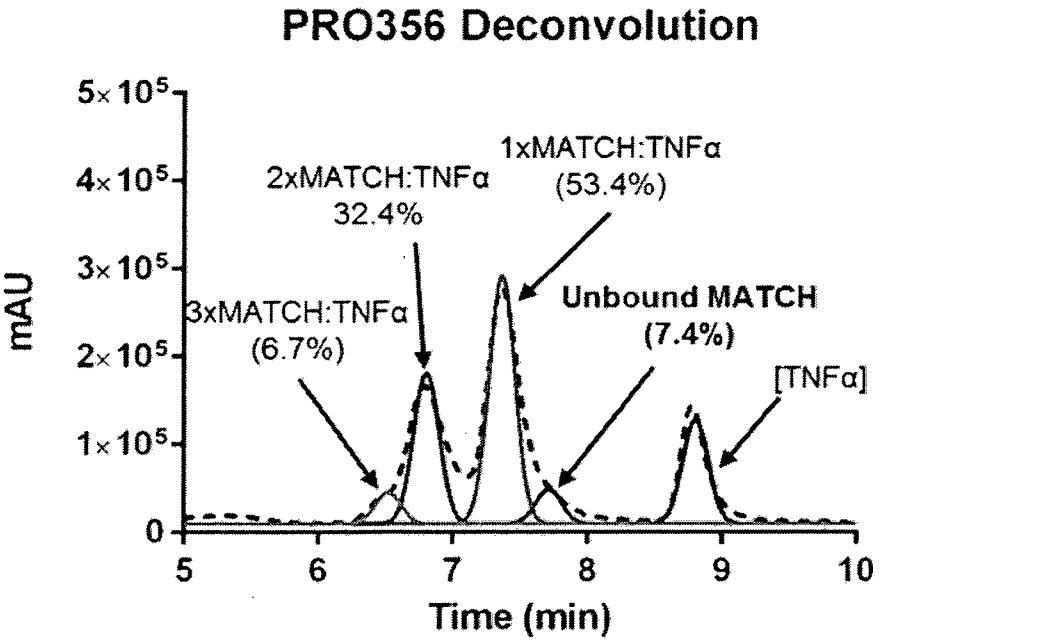
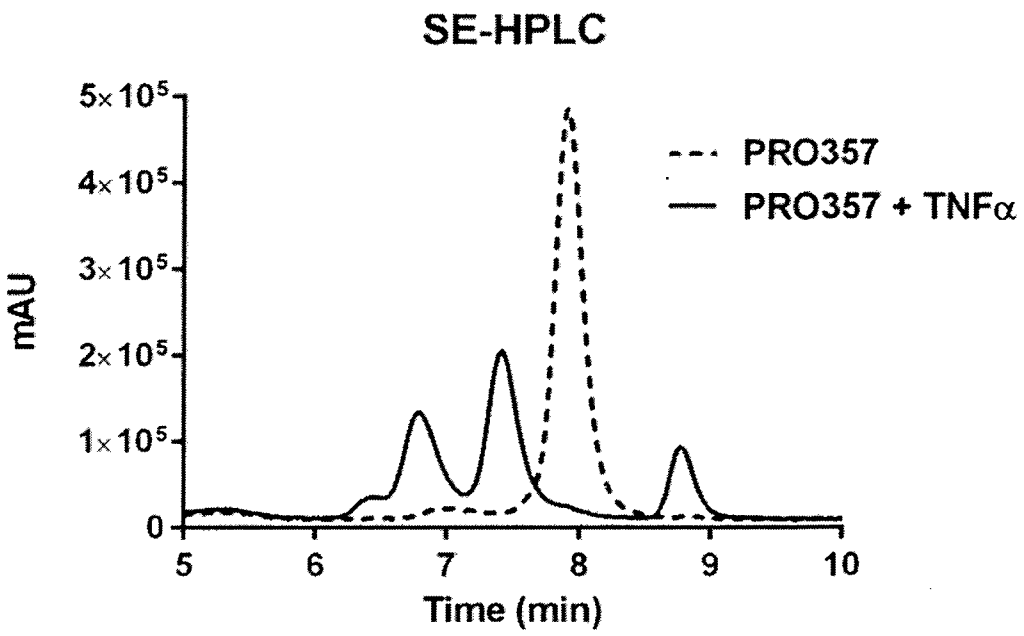

MATCH Concomitant Binding
400
300
200
100
0
RU
IL-23R
TNFα
IL-5R
CD3ε
Time
PRO355
PRO356
PRO357

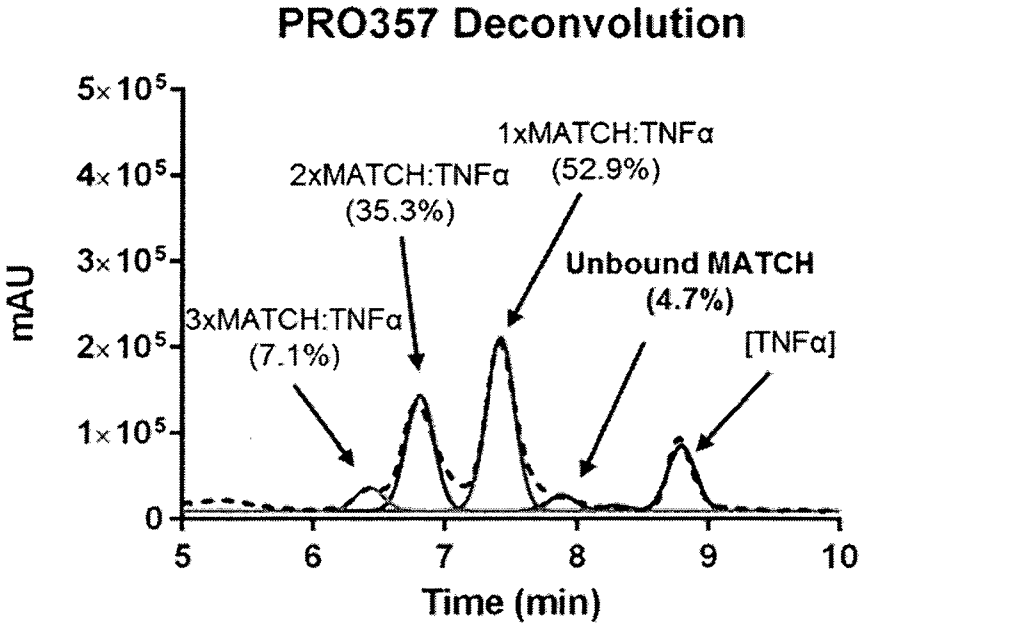
FIGURE 12:


SE-HPLC
PRO355
PRO355 + TNFα
mAU
Time (min)
PRO355 Deconvolution
1xMATCH:TNFα
(52.4%)
2xMATCH:TNFα
(29.6%)
Unbound MATCH
(11.4%)
3xMATCH:TNFα
(6.7%)
[TNFα]
mAU
Time (min)


SE-HPLC
PRO356
PRO356 + TNFα
mAU
5×10^5
4×10^5
3×10^5
2×10^5
1×10^5
0
5
6
7
8
9
10
Time (min)


PRO356 Deconvolution
mAU
5×10^5
4×10^5
3×10^5
2×10^5
1×10^5
0
2xMATCH:TNFα
32.4%
1xMATCH:TNFα
(53.4%)
3xMATCH:TNFα
(6.7%)
Unbound MATCH
(7.4%)
[TNFα]
5
6
7
8
9
10
Time (min)


SE-HPLC
5×10^5
4×10^5
3×10^5
2×10^5
1×10^5
0
mAU
5
6
7
8
9
10
Time (min)
PRO357
PRO357 + TNFα


PRO357 Deconvolution
5×10^5
4×10^5
3×10^5
2×10^5
1×10^5
0
mAU
5
6
7
8
9
10
Time (min)
1xMATCH:TNFα
(52.9%)
2xMATCH:TNFα
(35.3%)
Unbound MATCH
(4.7%)
3xMATCH:TNFα
(7.1%)
[TNFα]