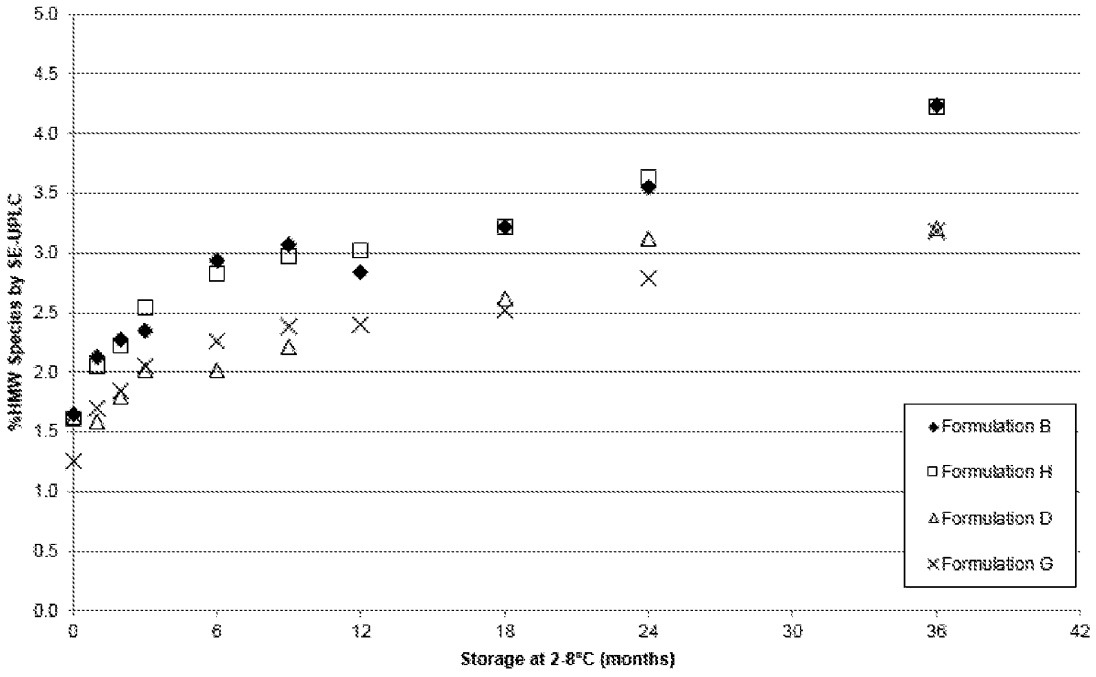

%HMW Species by SE-UPLC
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
0
6
12
18
24
30
36
42
Storage at 2-8°C (months)
Formulation B
Formulation H
Formulation D
Formulation G

FIG. 1A

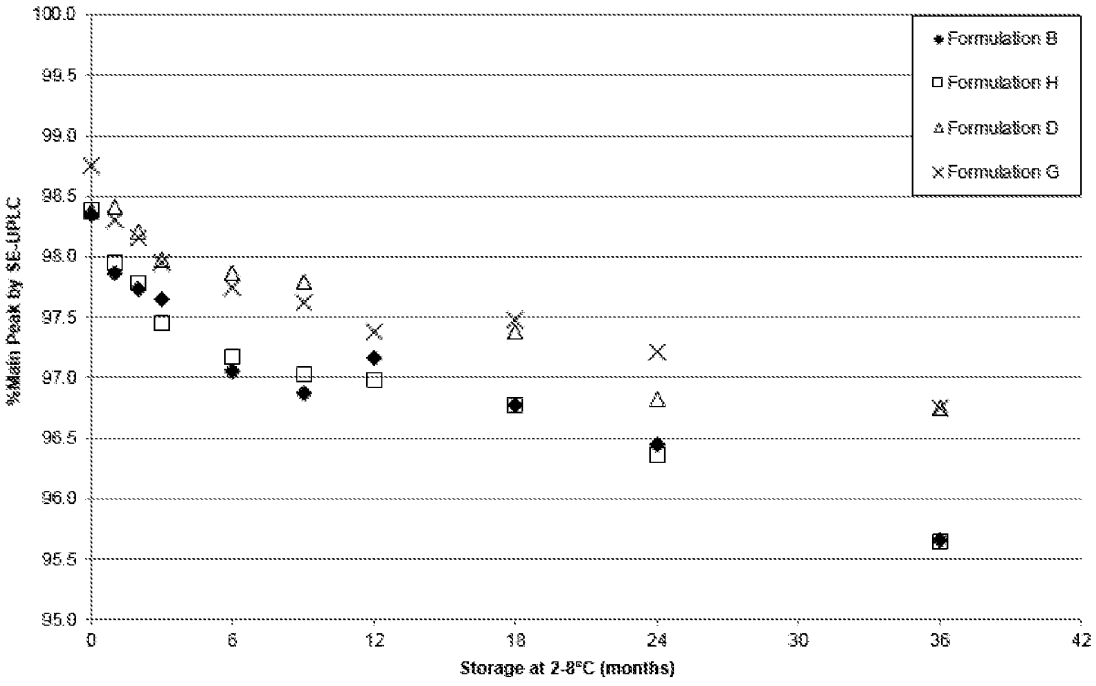

100.0
99.5
99.0
98.5
98.0
97.5
97.0
96.5
96.0
95.5
95.0
%Main Peak by SE-UPLC
0
6
12
18
24
30
36
42
Storage at 2-8°C (months)
Formulation B
Formulation H
Formulation D
Formulation G

FIG. 1B

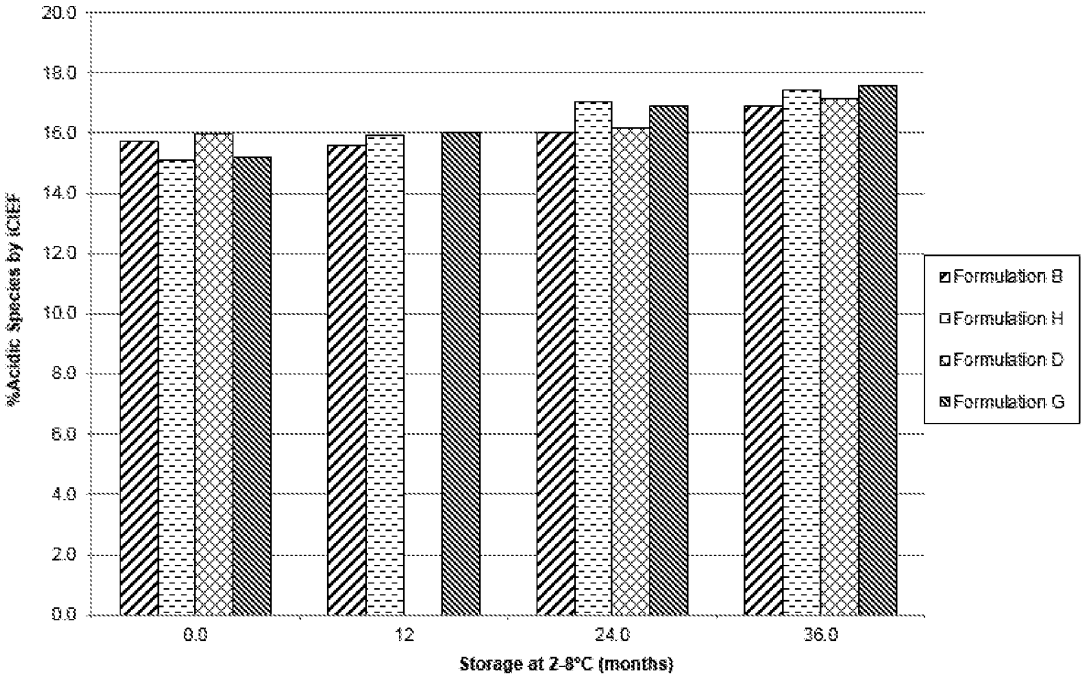

20.0
18.0
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
%Acidic Species by iCIEF
0.0
12
24.0
36.0
Storage at 2-8°C (months)
Formulation B
Formulation H
Formulation D
Formulation G

FIG. 1C

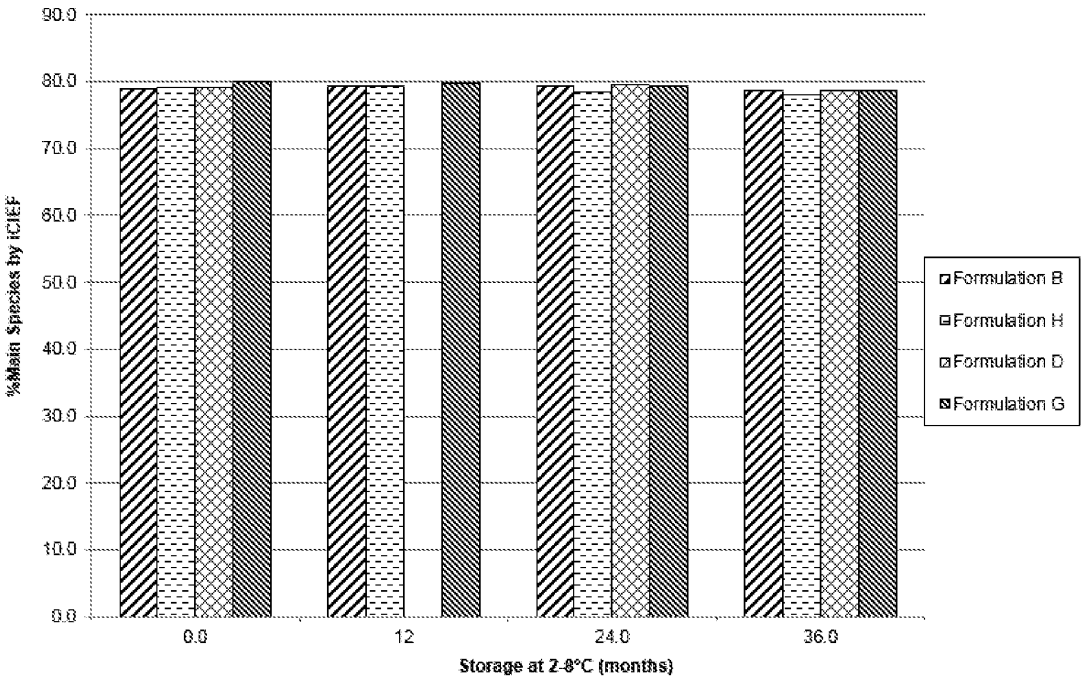

90.0
80.0
70.0
60.0
50.0
40.0
30.0
20.0
10.0
0.0
%Main Species by iCIEF
0.0
12
24.0
36.0
Storage at 2-8°C (months)
Formulation B
Formulation H
Formulation D
Formulation G

FIG. 1D

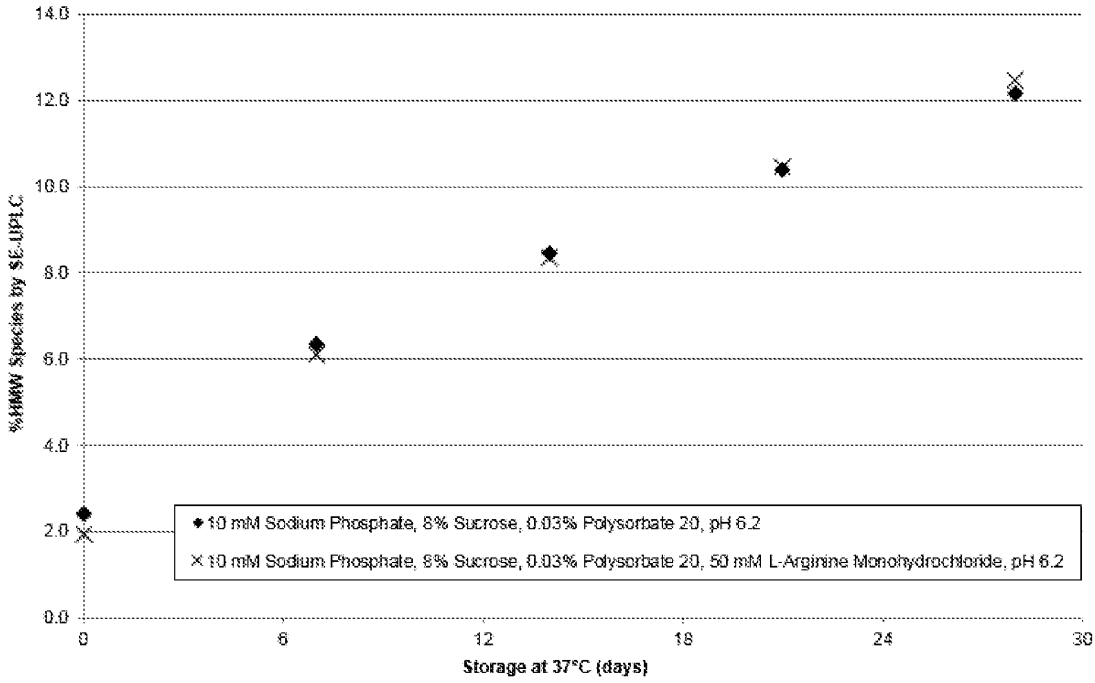

14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
%HMW Species by SE-UPLC
0
6
12
18
24
30
Storage at 37°C (days)
10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, pH 6.2
10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, 50 mM L-Arginine Monohydrochloride, pH 6.2

FIG. 2A

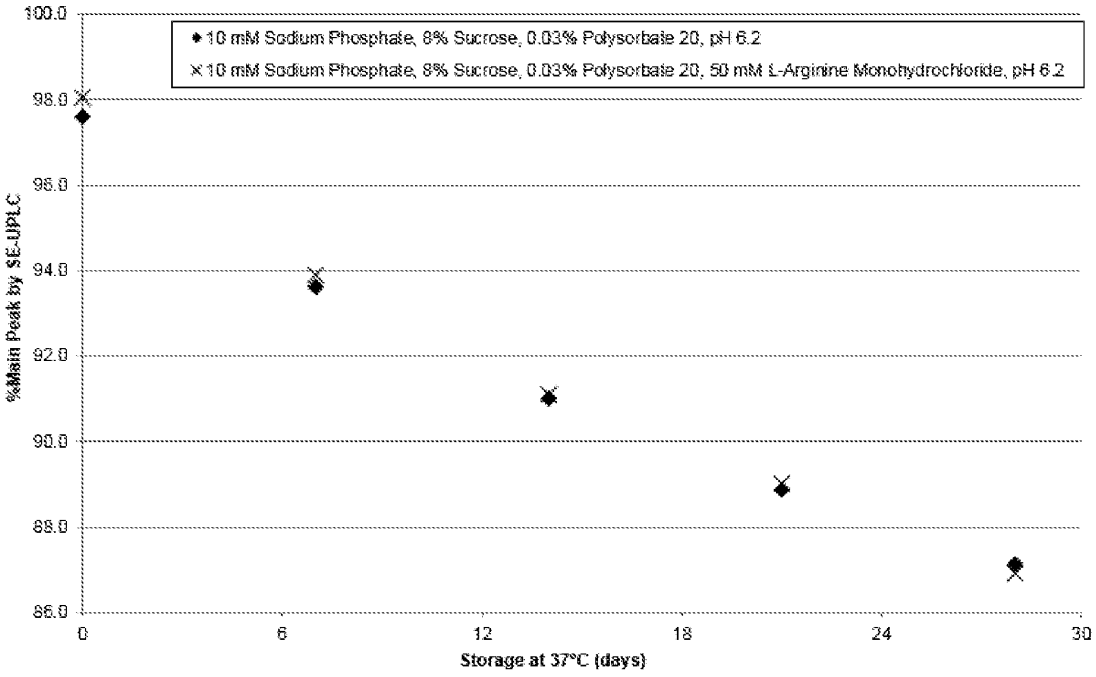

10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, pH 6.2
10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, 50 mM L-Arginine Monohydrochloride, pH 6.2
%Main Peak by SE-UPLC
100.0
98.0
96.0
94.0
92.0
90.0
88.0
86.0
0
6
12
18
24
30
Storage at 37°C (days)

FIG. 2B

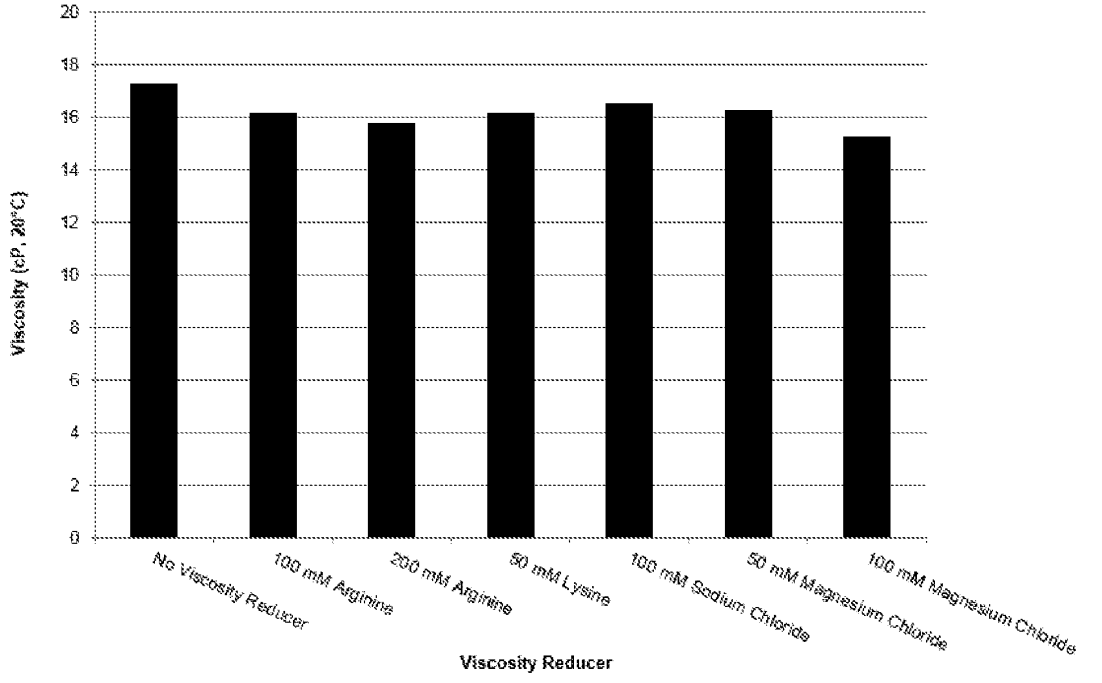

Viscosity (cP, 20°C)
20
18
16
14
12
10
8
6
4
2
0
No Viscosity Reducer
100 mM Arginine
200 mM Arginine
50 mM Lysine
100 mM Sodium Chloride
50 mM Magnesium Chloride
100 mM Magnesium Chloride
Viscosity Reducer

FIG. 3A

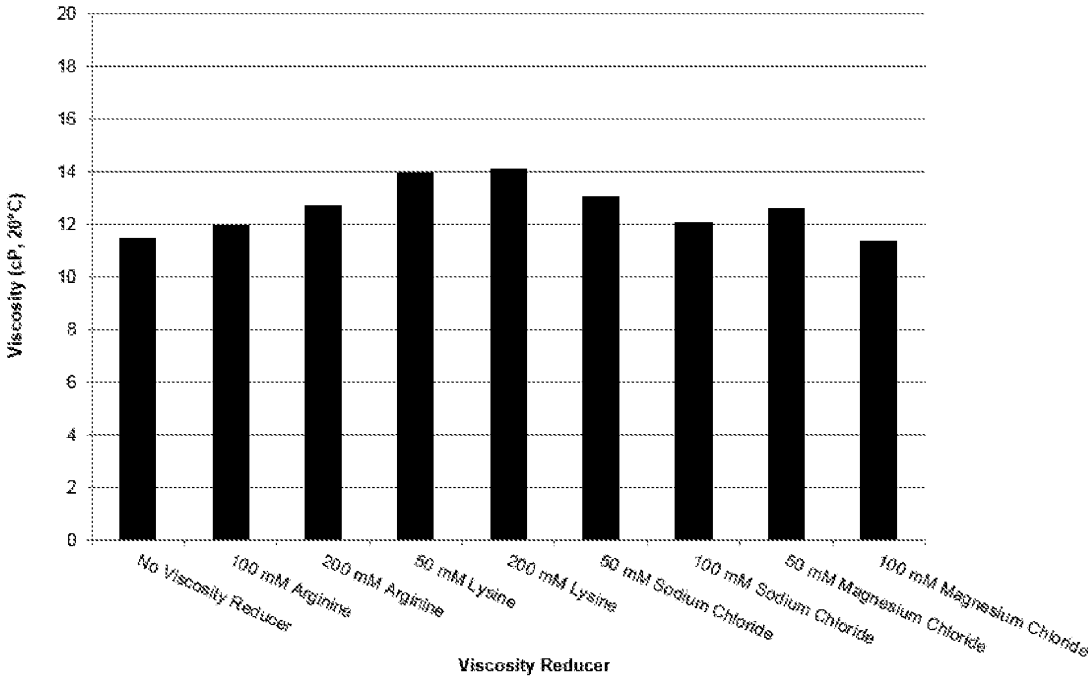

20
18
16
14
12
10
8
6
4
2
0
Viscosity (cP, 20°C)
No Viscosity Reducer
100 mM Arginine
200 mM Arginine
50 mM Lysine
200 mM Lysine
50 mM Sodium Chloride
100 mM Sodium Chloride
50 mM Magnesium Chloride
100 mM Magnesium Chloride
Viscosity Reducer

FIG. 3B

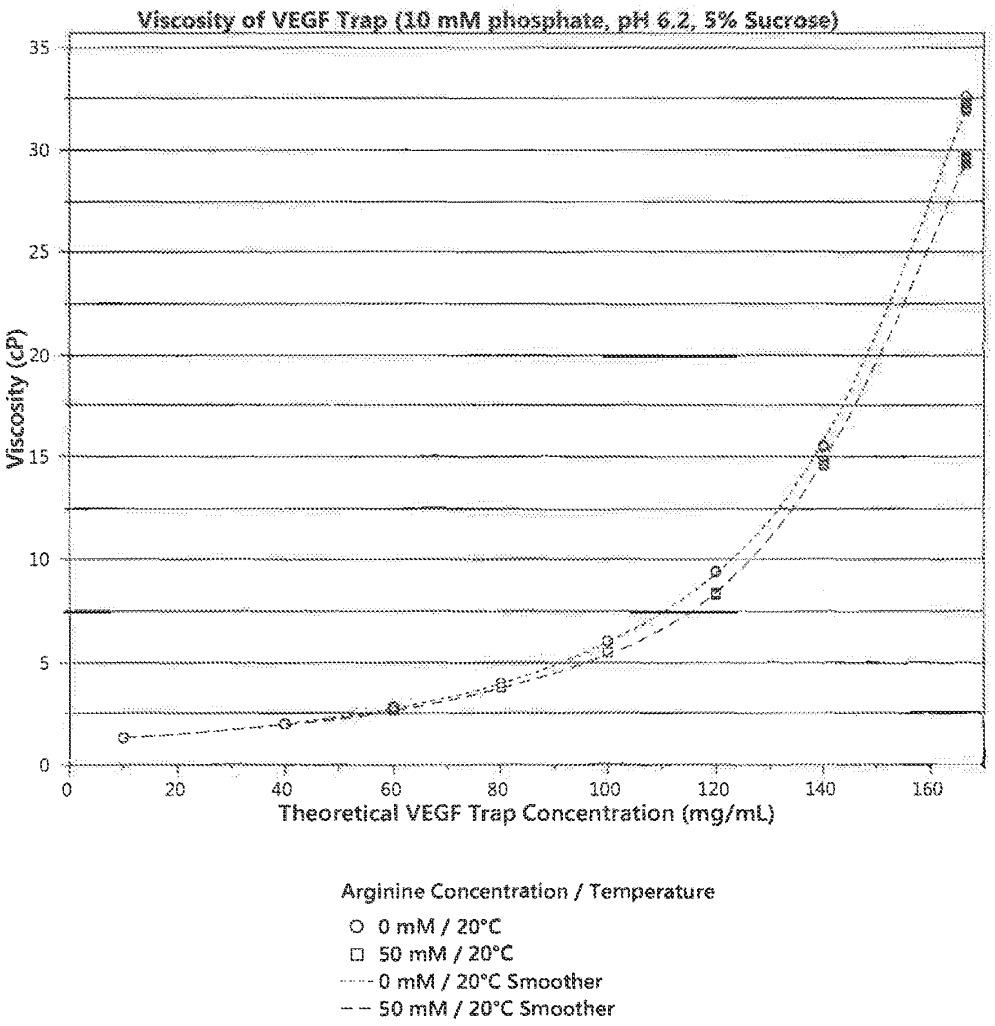


FIG. 3C

INCORPORATED BY REFERENCE (RULE 20.6)

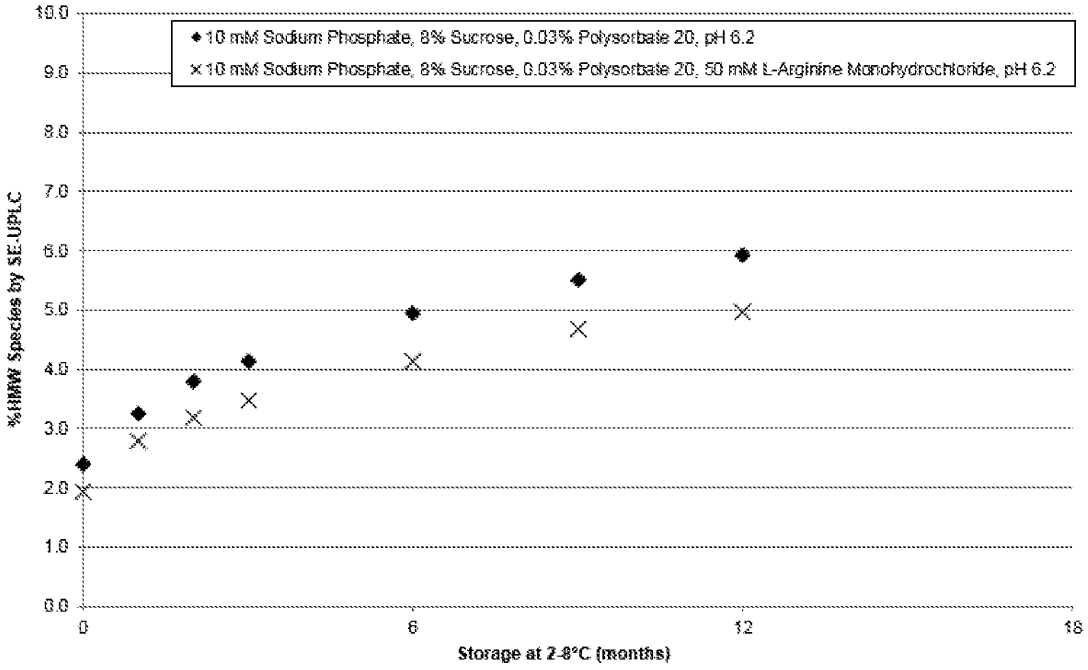

10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, pH 6.2
10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, 50 mM L-Arginine Monohydrochloride, pH 6.2
%HMW Species by SE-UPLC
10.0
9.0
8.0
7.0
6.0
5.0
4.0
3.0
2.0
1.0
0.0
0
6
12
18
Storage at 2-8°C (months)

FIG. 4A

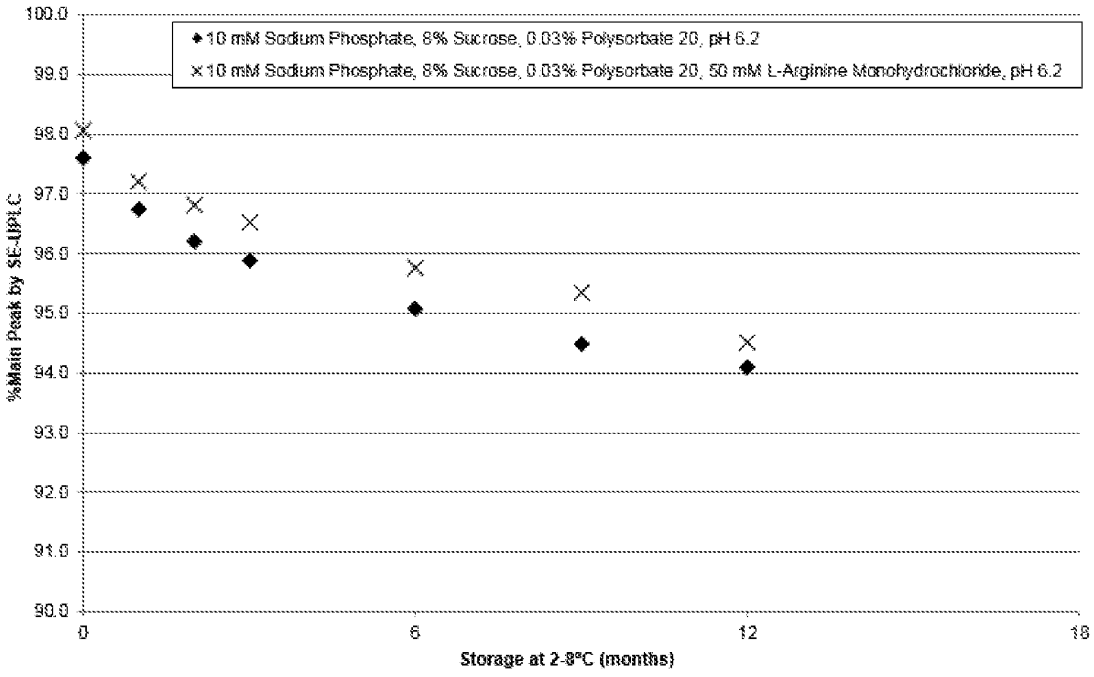

10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, pH 6.2
10 mM Sodium Phosphate, 8% Sucrose, 0.03% Polysorbate 20, 50 mM L-Arginine Monohydrochloride, pH 6.2
%Main Peak by SE-HPLC
100.0
99.0
98.0
97.0
96.0
95.0
94.0
93.0
92.0
91.0
90.0
0
6
12
18
Storage at 2-8°C (months)

FIG. 4B

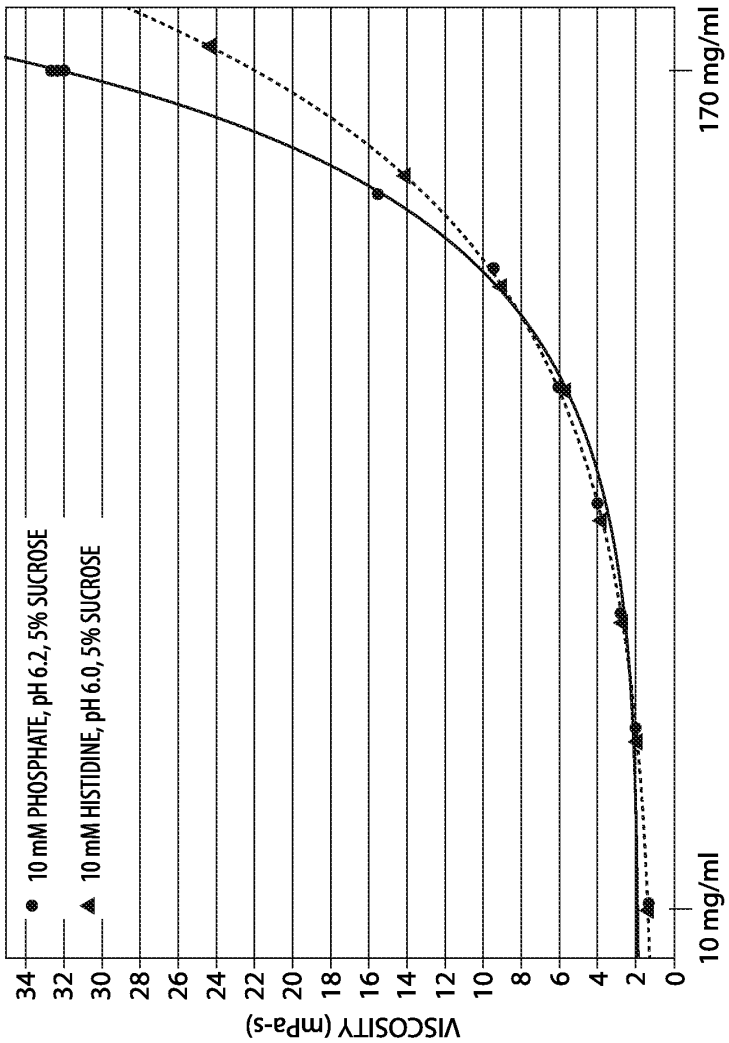

10 mM PHOSPHATE, pH 6.2, 5% SUCROSE
10 mM HISTIDINE, pH 6.0, 5% SUCROSE
VISCOSITY (mPa-s)
0
2
4
6
8
10
12
14
16
18
20
22
24
26
28
30
32
34
10 mg/ml
170 mg/ml

FIG. 5

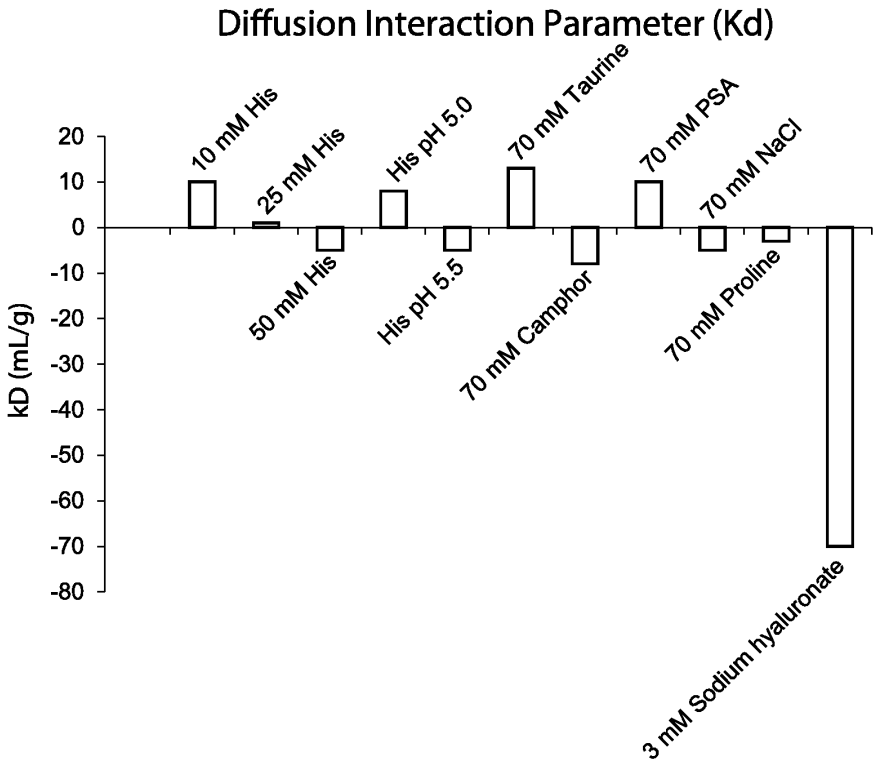

Diffusion Interaction Parameter (Kd)
kD (mL/g)
20
10
0
-10
-20
-30
-40
-50
-60
-70
-80
10 mM His
25 mM His
50 mM His
His pH 5.0
His pH 5.5
70 mM Taurine
70 mM Camphor
70 mM PSA
70 mM Proline
70 mM NaCl
3 mM Sodium hyaluronate

FIG. 6

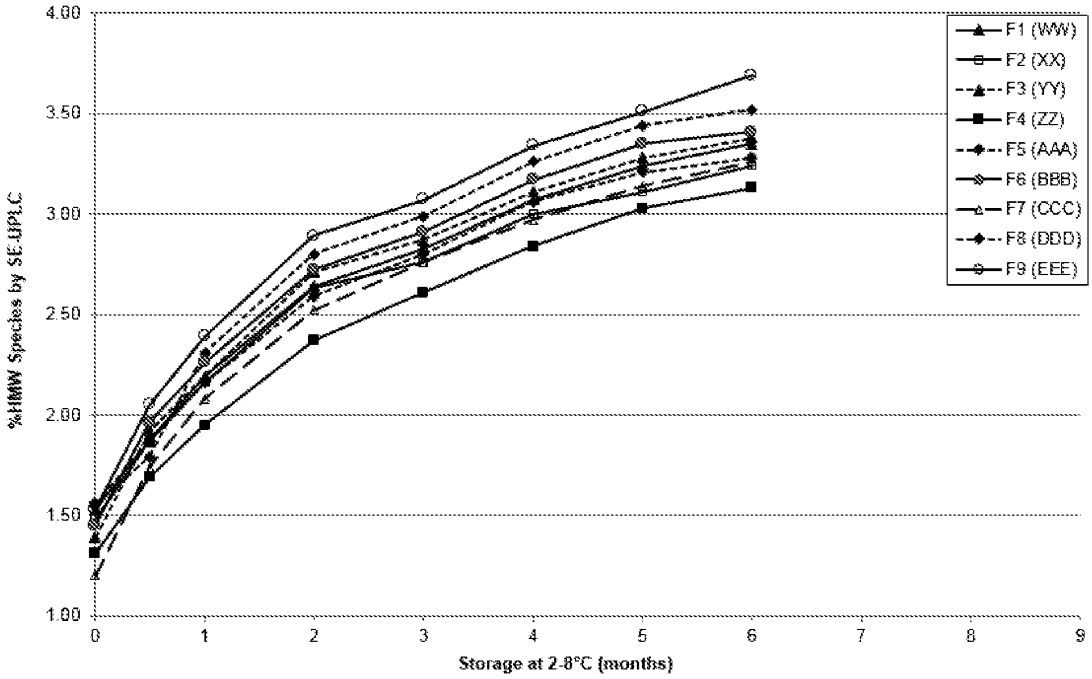

4.00
3.50
3.00
2.50
2.00
1.50
1.00
%HMW Species by SE-UPLC
0
1
2
3
4
5
6
7
8
9
Storage at 2-8°C (months)
F1 (WW)
F2 (XX)
F3 (YY)
F4 (ZZ)
F5 (AAA)
F6 (BBB)
F7 (CCC)
F8 (DDD)
F9 (EEE)

FIG. 7

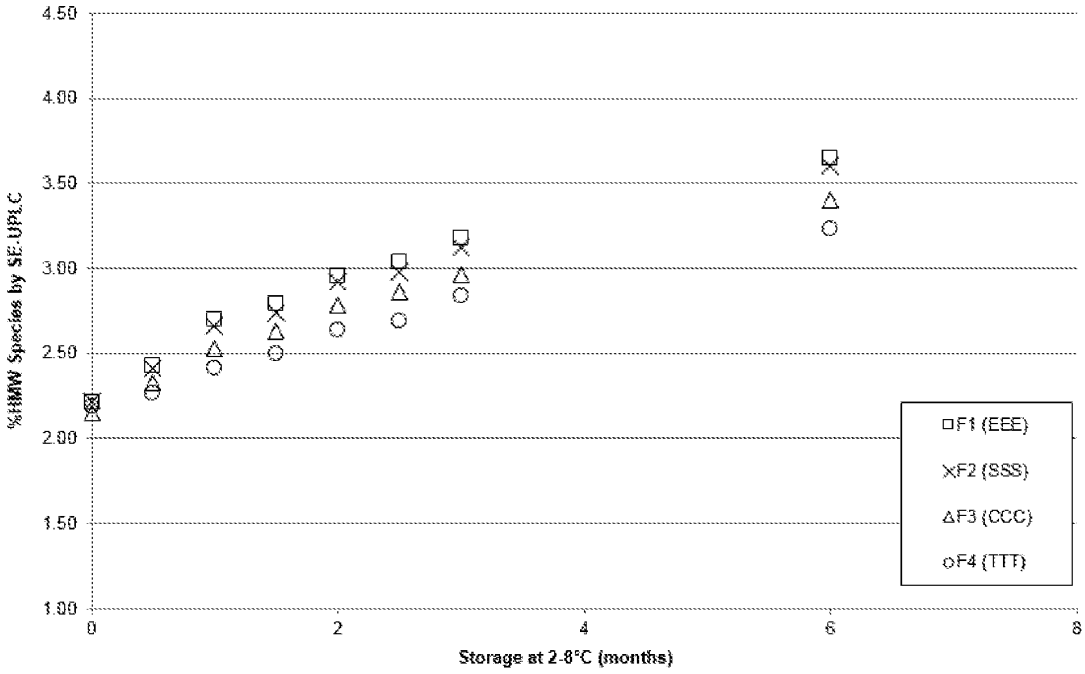

4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
%HMW Species by SE-UPLC
0
2
4
6
8
Storage at 2-8°C (months)
F1 (EEE)
F2 (SSS)
F3 (CCC)
F4 (TTT)

FIG. 8A

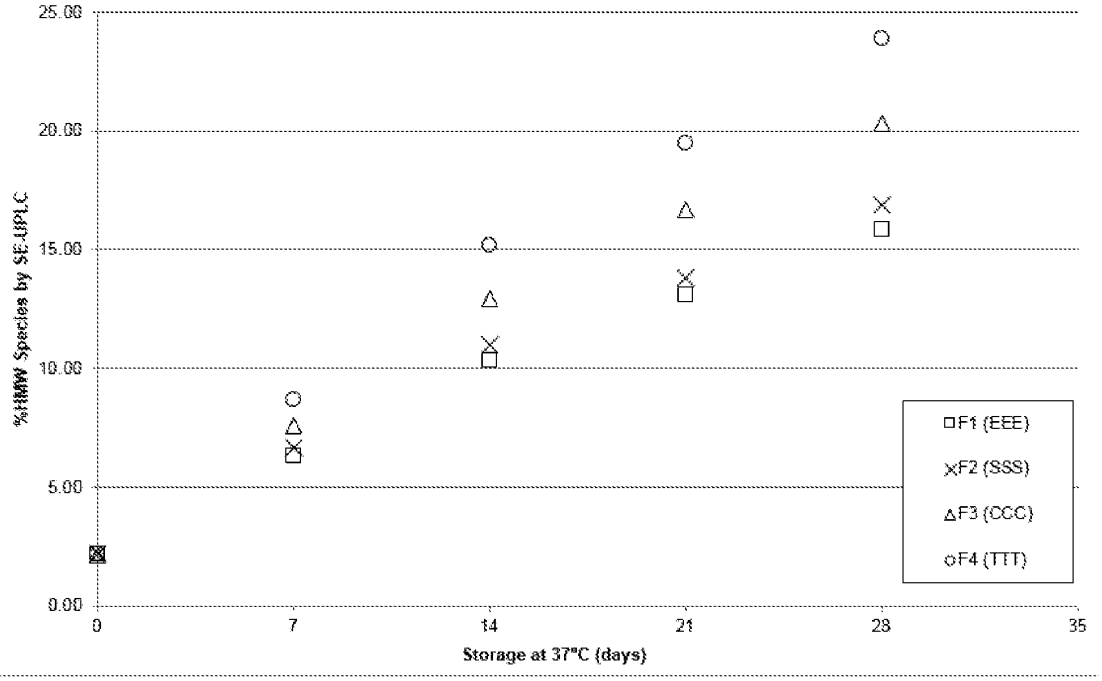

25.00
20.00
15.00
10.00
5.00
0.00
0
7
14
21
28
35
Storage at 37°C (days)
F1 (EEE)
F2 (SSS)
F3 (CCC)
F4 (TTT)

FIG. 8B

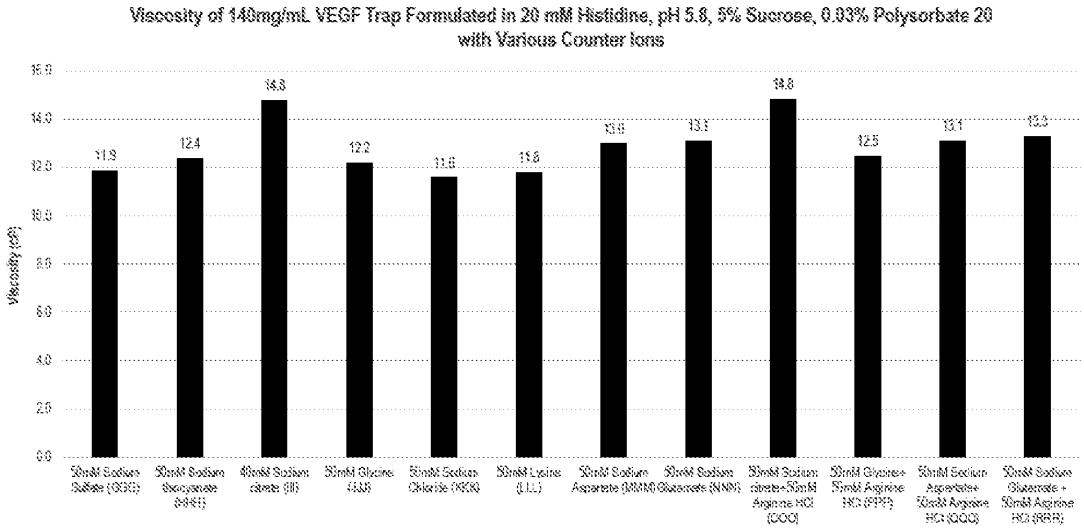

Viscosity of 140mg/mL VEGF Trap Formulated in 20 mM Histidine, pH 5.8, 5% Sucrose, 0.03% Polysorbate 20 with Various Counter Ions
Viscosity (cP)
16.0
14.0
12.0
10.0
8.0
6.0
4.0
2.0
0.0
11.9
12.4
14.8
12.2
11.6
11.8
13.0
13.1
14.8
12.5
13.1
13.3
50mM Sodium Sulfate (SSS)
50mM Sodium Isocyanate (HHH)
40mM Sodium citrate (III)
50mM Glycine (GGG)
50mM Sodium Chloride (NCN)
50mM Lysine (LLL)
50mM Sodium Aspartate (NNN)
50mM Sodium Glutamate (NNN)
50mM Sodium citrate+50mM Arginine HCl (CCC)
50mM Glycine+ 50mM Arginine HCl (PPP)
50mM Sodium Aspartate+ 50mM Arginine HCl (QQQ)
50mM Sodium Glutamate + 50mM Arginine HCl (RRR)

FIG. 9

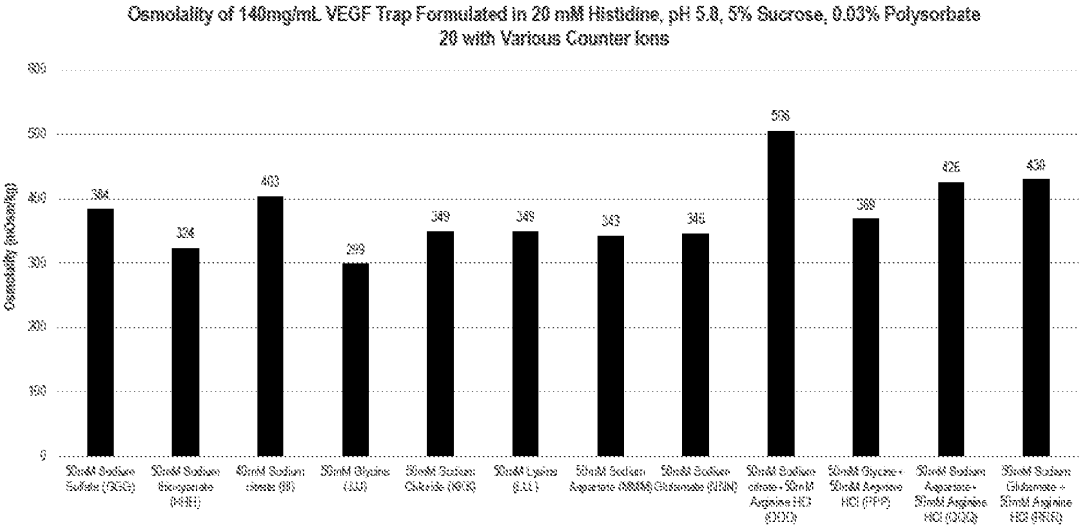

Osmolality of 140mg/mL VEGF Trap Formulated in 20 mM Histidine, pH 5.8, 5% Sucrose, 0.03% Polysorbate 20 with Various Counter Ions
Osmolality (mOsm/kg)
600
500
400
300
200
100
0
384
336
403
299
349
348
343
346
506
369
426
430
50mM Sodium Sulfate (SSS)
50mM Sodium Isocyanate (HHH)
40mM Sodium citrate (III)
50mM Glycine (GGG)
50mM Sodium Chloride (NCN)
50mM Lysine (LLL)
50mM Sodium Aspartate (NNN)
50mM Sodium Glutamate (NNN)
50mM Sodium citrate + 50mM Arginine HCl (CCC)
50mM Glycine + 50mM Arginine HCl (PPP)
50mM Sodium Aspartate + 50mM Arginine HCl (QQQ)
50mM Sodium Glutamate + 50mM Arginine HCl (RRR)

FIG. 10

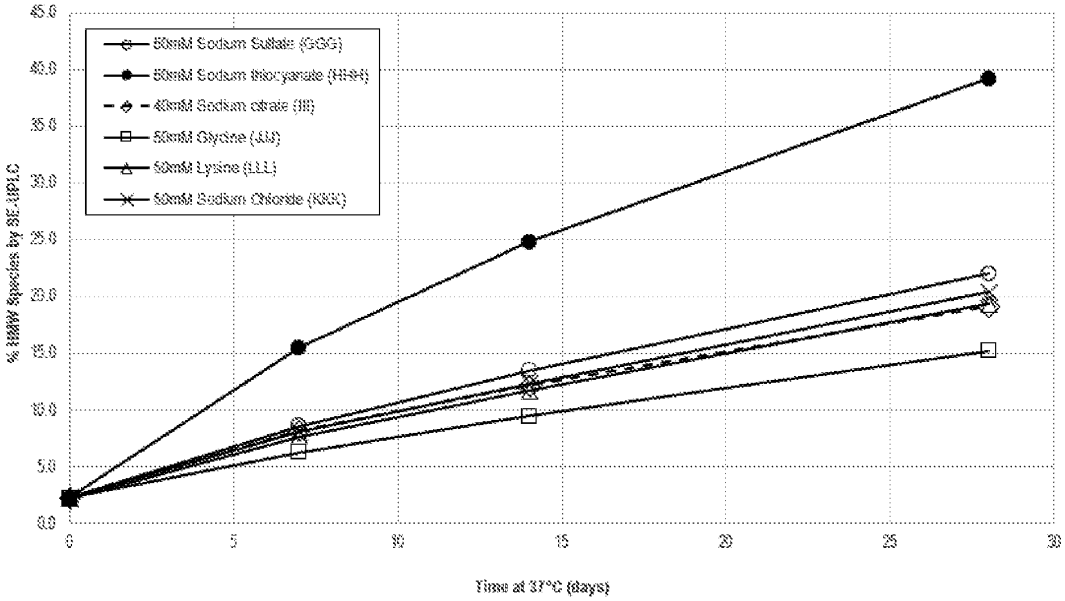


FIG. 11A

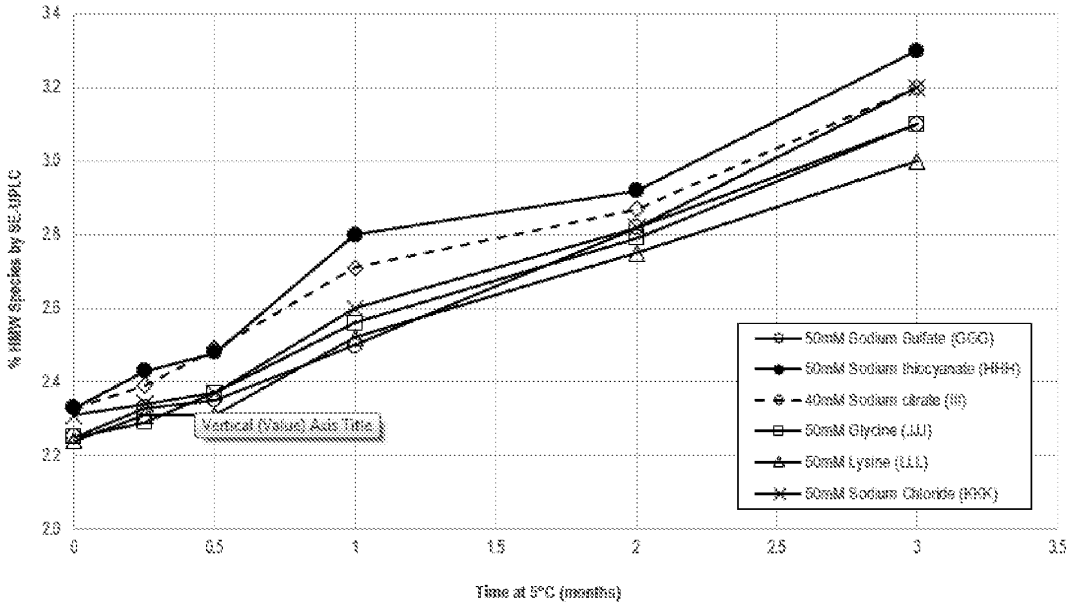


FIG. 11B

Formulations	Diffusion coefficient (cm2/sec)	Radius (nm)	% Pd
F1 (50mM Sodium Sulfate)	3.32E-07	7.4	15.3
F2(50mM Sodium thiocyanate)	2.98E-07	8.2	14.7
F3 (50mM Sodium citrate)	3.20E-07	7.7	16.3
F4 (50mM Glycine)	3.89E-07	6.3	18.9
F5 (50mM Sodium Chloride)	3.24E-07	7.6	13.8
F6 (50mM Lysine)	3.17E-07	7.7	13.5
F7 (50mM Sodium Aspartate)	3.32E-07	7.4	18.2
F8 (50mM Sodium Glutamate)	3.32E-07	7.4	15.0
F9 (50mM Sodium citrate+50mM Arginine HCl)	3.31E-07	7.4	14.4
F10 (50mM Glycine+ 50mM Arginine HCl)	3.31E-07	7.4	14.3
F11 (50mM Sodium Aspartate+ 50mM Arginine HCl)	3.24E-07	7.6	14.8
F12 (50mM Sodium Glutamate + 50mM Arginine HCl)	3.22E-07	7.6	13.3

FIG. 12

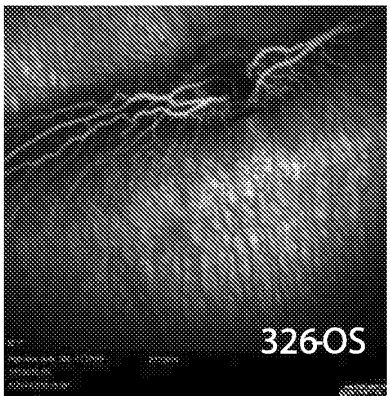


FIG. 13A

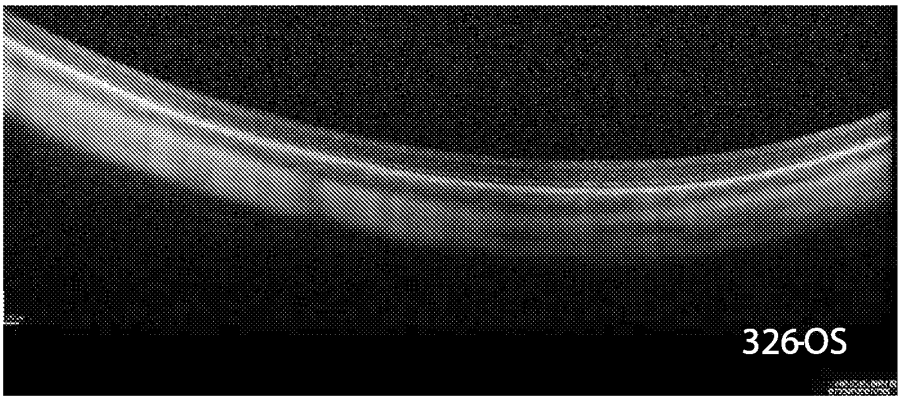


FIG. 13B

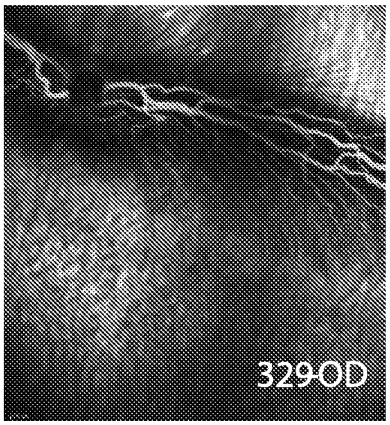


FIG. 13C

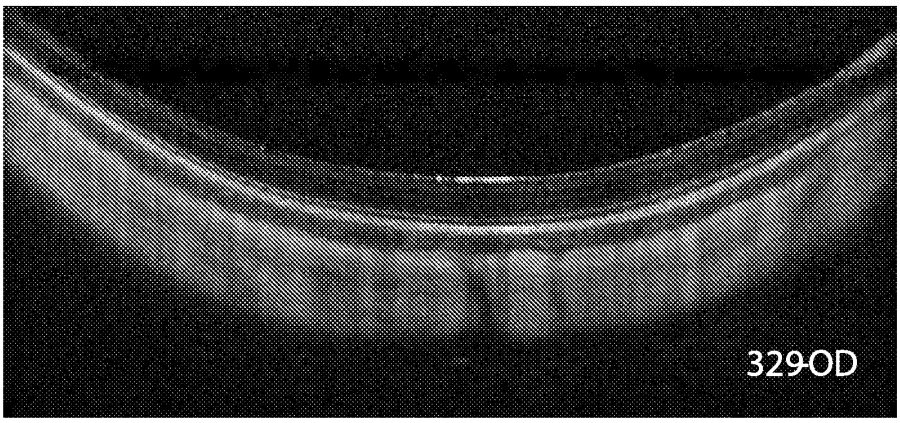


FIG. 13D

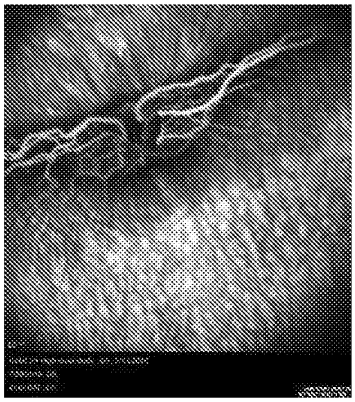


FIG. 14A

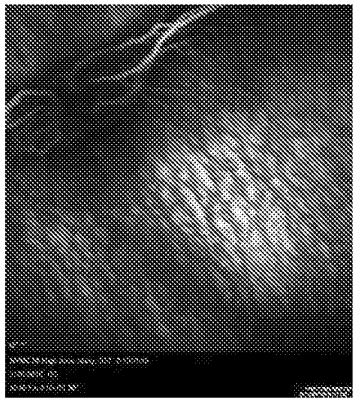


FIG. 14B

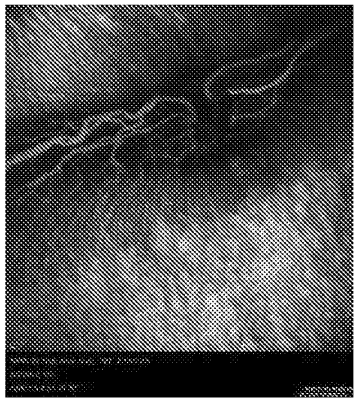


FIG. 14C

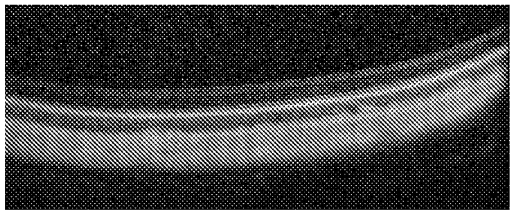


FIG. 14D

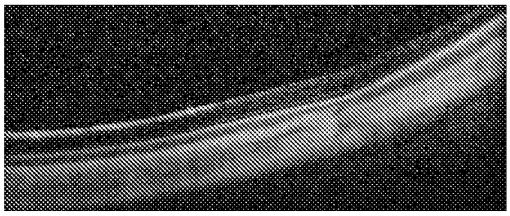


FIG. 14E

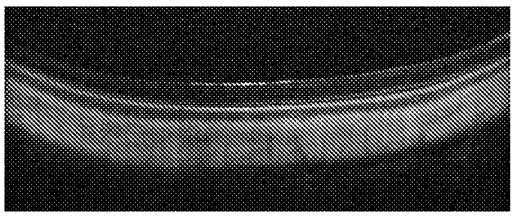


FIG. 14F

FA

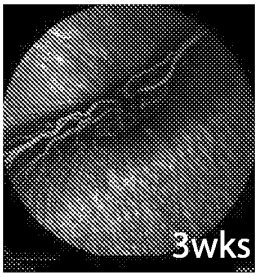


FIG. 15A

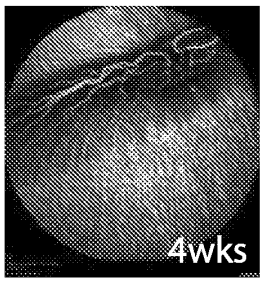


FIG. 15B

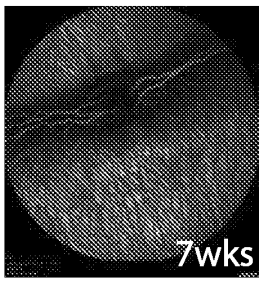


FIG. 15C

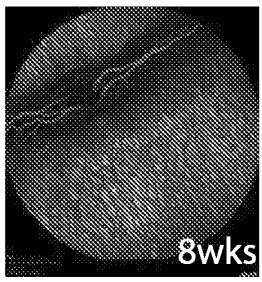


FIG. 15D

OCT

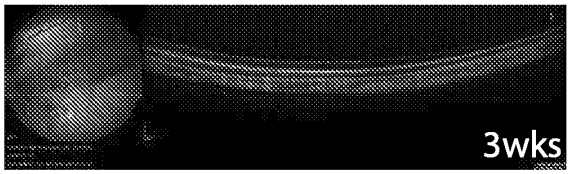


FIG. 15E

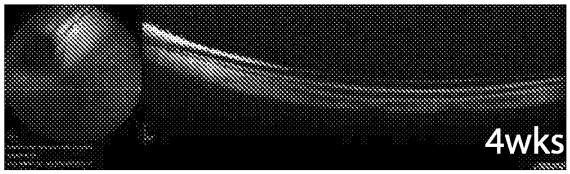


FIG. 15F

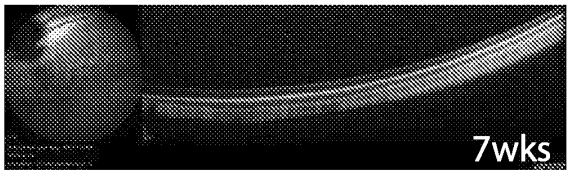


FIG. 15G

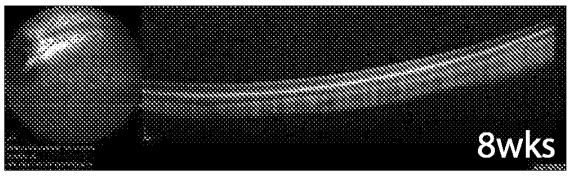


FIG. 15H

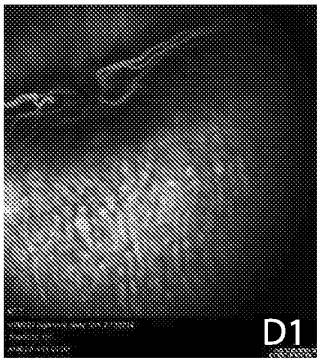


FIG. 16A



FIG. 16B

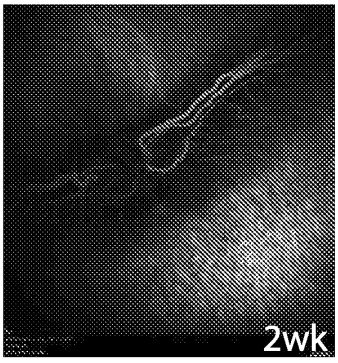


FIG. 16C

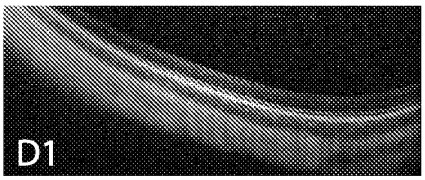


FIG. 16D

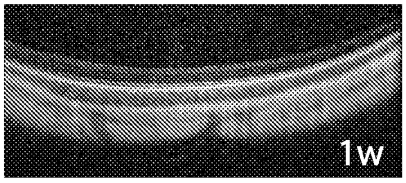


FIG. 16E

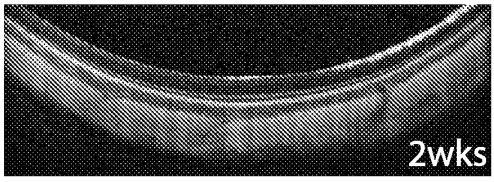


FIG. 16F

FA

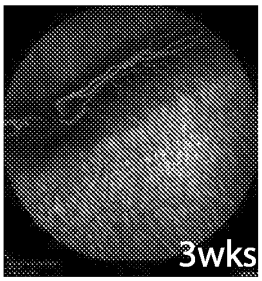


FIG. 17A

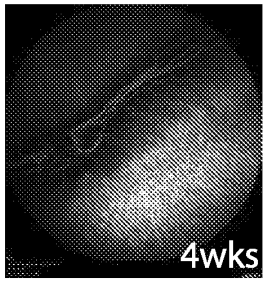


FIG. 17B

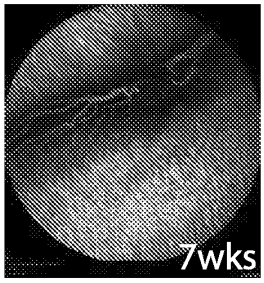


FIG. 17C

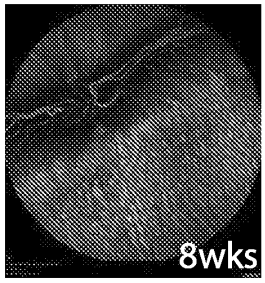


FIG. 17D

OCT

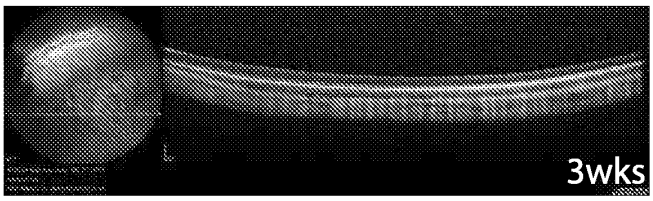


FIG. 17E

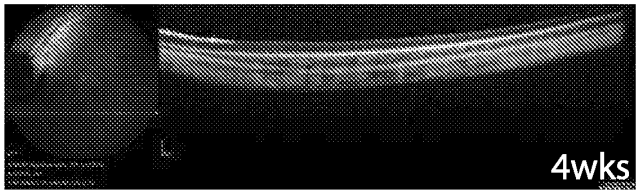


FIG. 17F

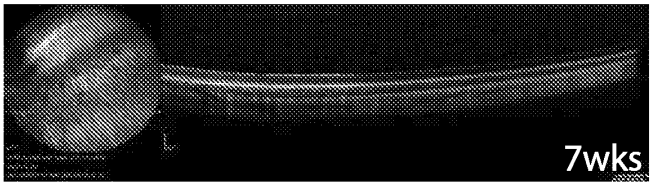


FIG. 17G

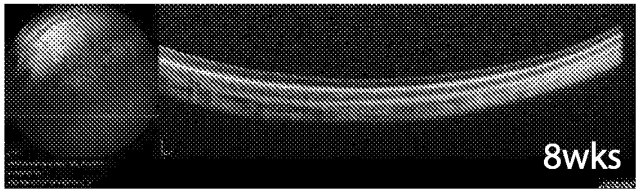


FIG. 17H

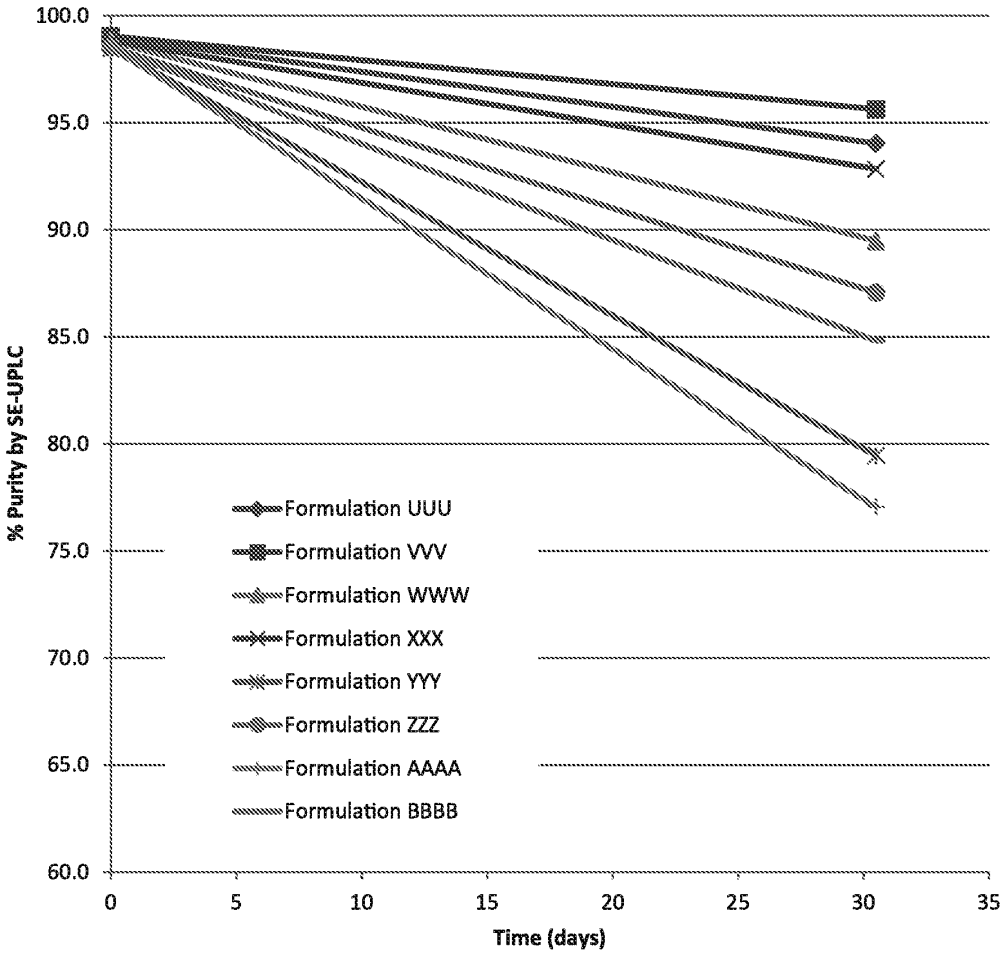

100.0
95.0
90.0
85.0
80.0
75.0
70.0
65.0
60.0
% Purity by SE-UPLC
0
5
10
15
20
25
30
35
Time (days)
Formulation UUU
Formulation VVV
Formulation WWW
Formulation XXX
Formulation YYY
Formulation ZZZ
Formulation AAAA
Formulation BBBB

FIG. 18A

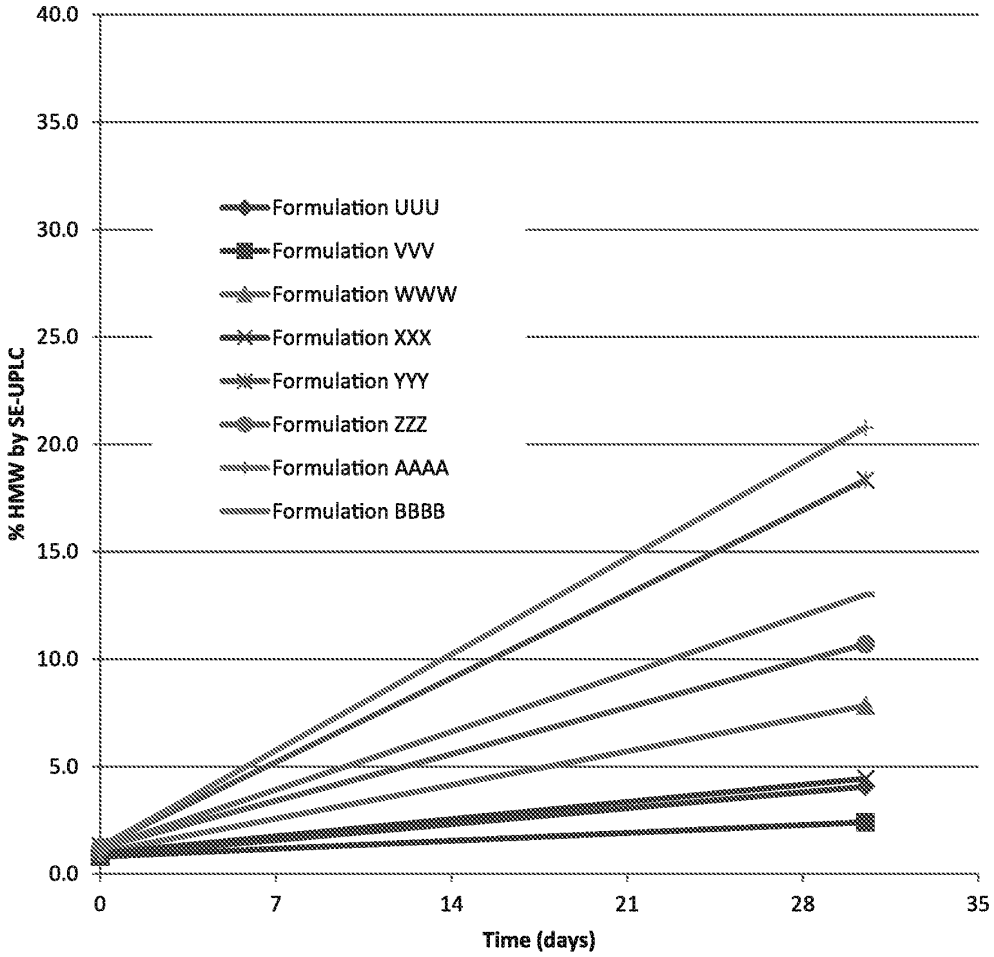

40.0
35.0
30.0
25.0
20.0
15.0
10.0
5.0
0.0
% HMW by SE-UPLC
0
7
14
21
28
35
Time (days)
Formulation UUU
Formulation VVV
Formulation WWW
Formulation XXX
Formulation YYY
Formulation ZZZ
Formulation AAAA
Formulation BBBB

FIG. 18B

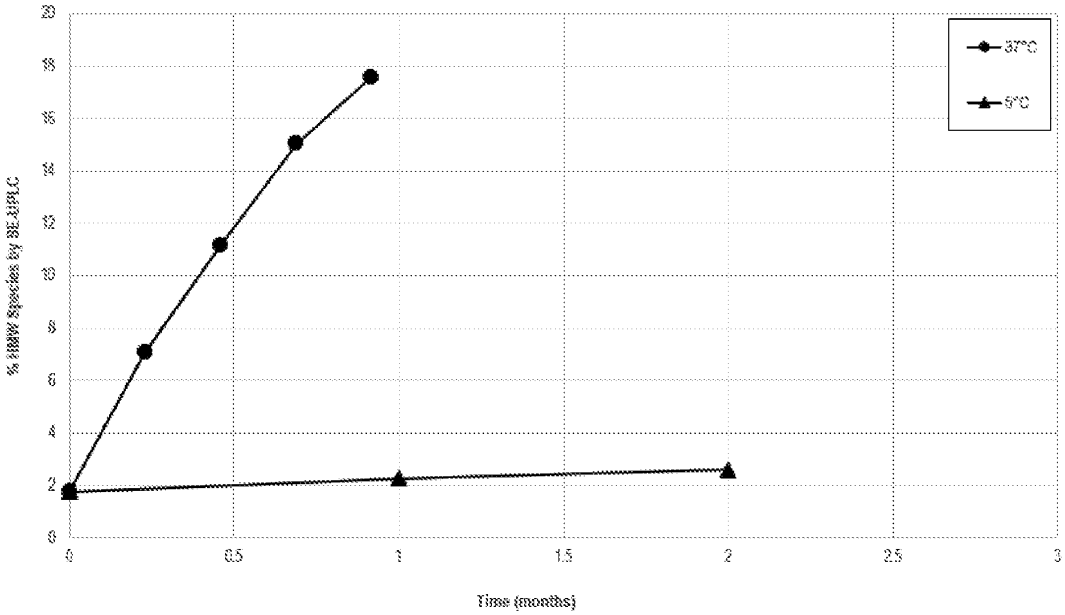


FIG. 19A

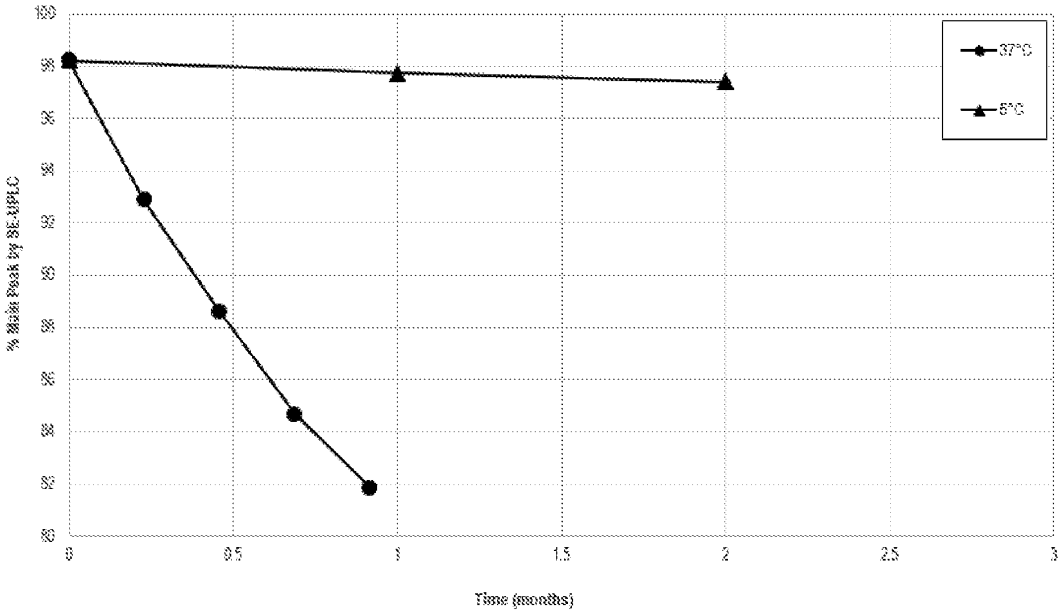


FIG. 19B

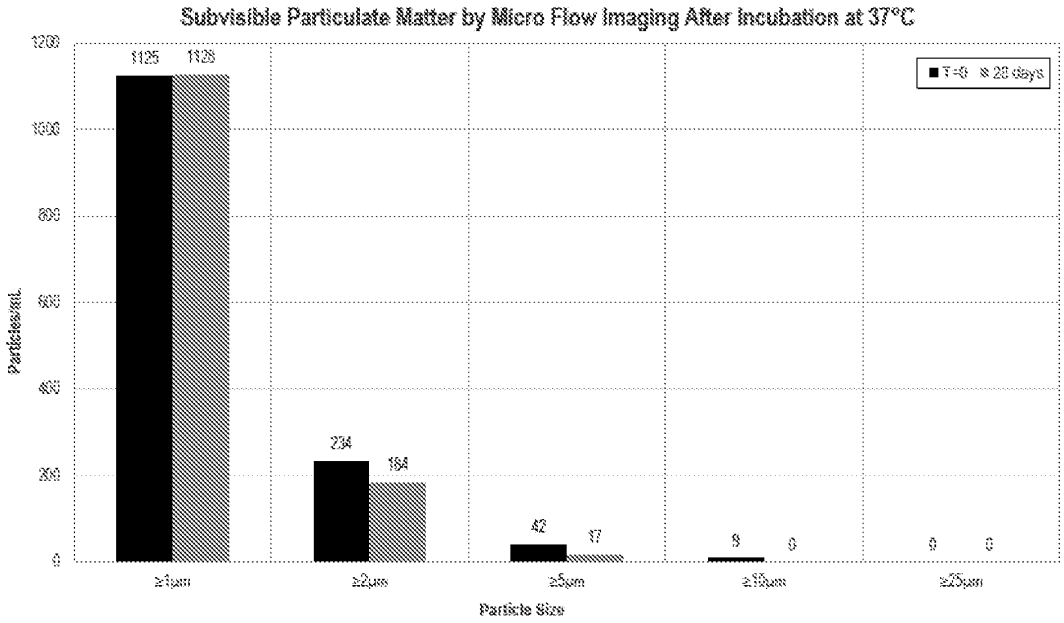


FIG. 19C

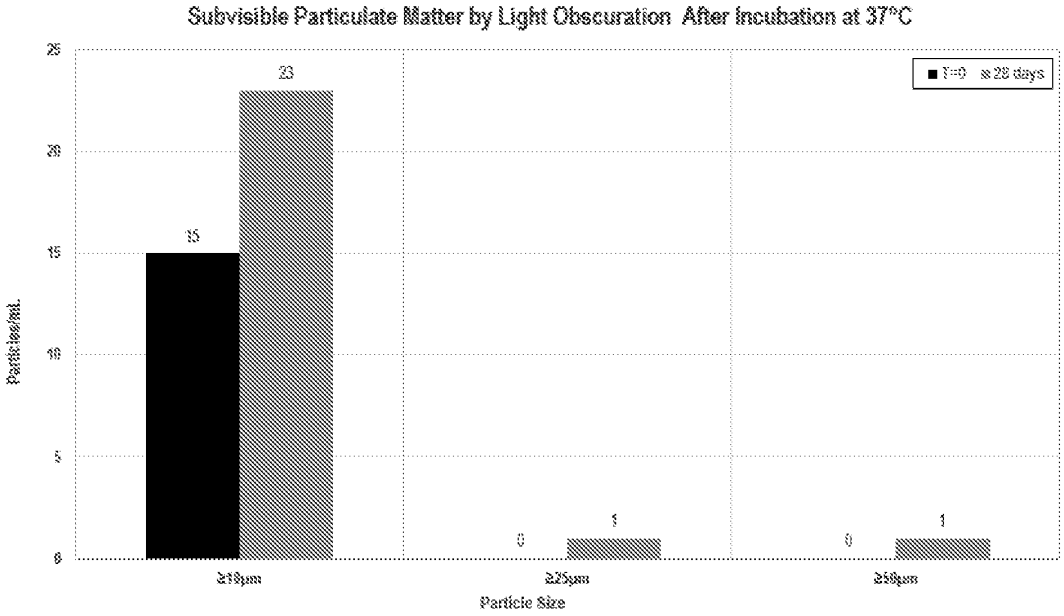


FIG. 19D

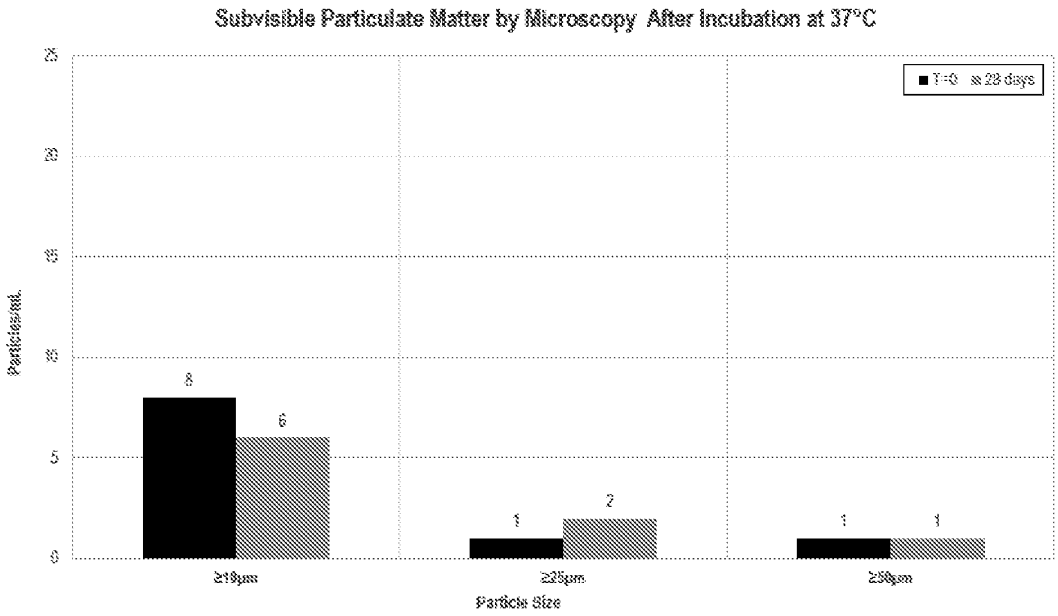

Subvisible Particulate Matter by Microscopy After Incubation at 37°C
T=0
T= 28 days
Particles/mL
8
6
1
2
1
1
≥10µm
≥25µm
≥50µm
Particle Size

FIG. 19E

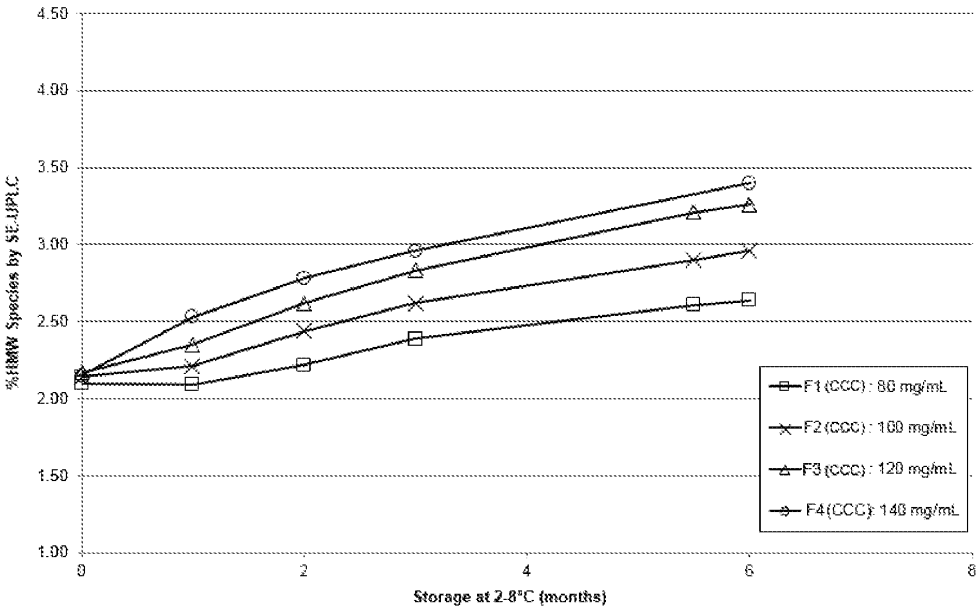

4.50
4.00
3.50
3.00
2.50
2.00
1.50
1.00
%HMW Species by SE-HPLC
0
2
4
6
8
Storage at 2-8°C (months)
F1 (CCC) : 86 mg/mL
F2 (CCC) : 100 mg/mL
F3 (CCC) : 120 mg/mL
F4 (CCC) : 140 mg/mL

FIG. 20A

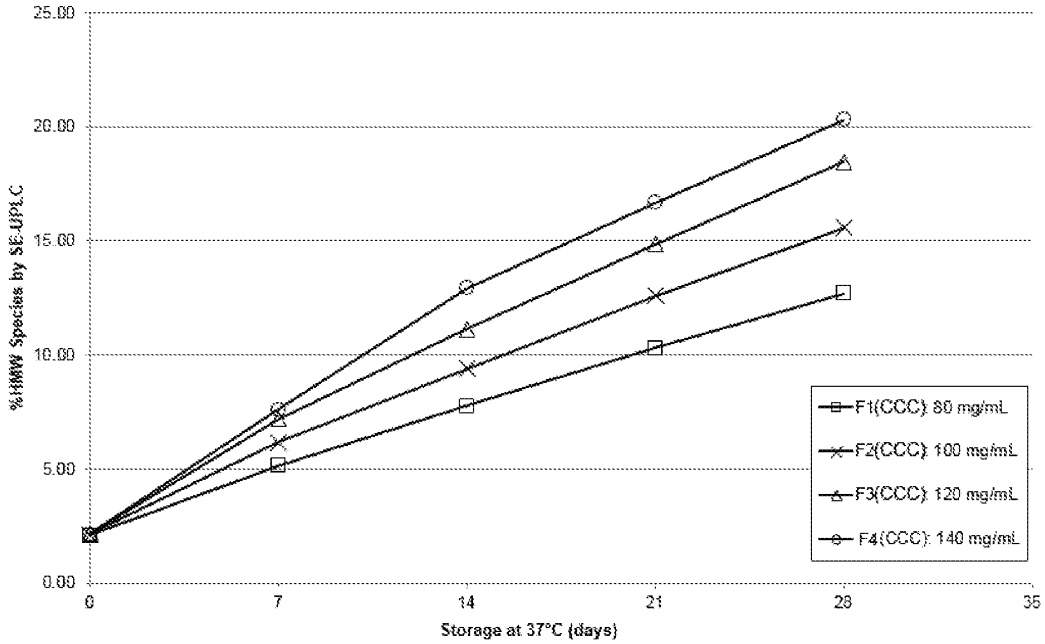

25.00
20.00
15.00
10.00
5.00
0.00
%HMW Species by SE-UPLC
0
7
14
21
28
35
Storage at 37°C (days)
F1(CCC): 80 mg/mL
F2(CCC): 100 mg/mL
F3(CCC): 120 mg/mL
F4(CCC): 140 mg/mL

FIG. 20B

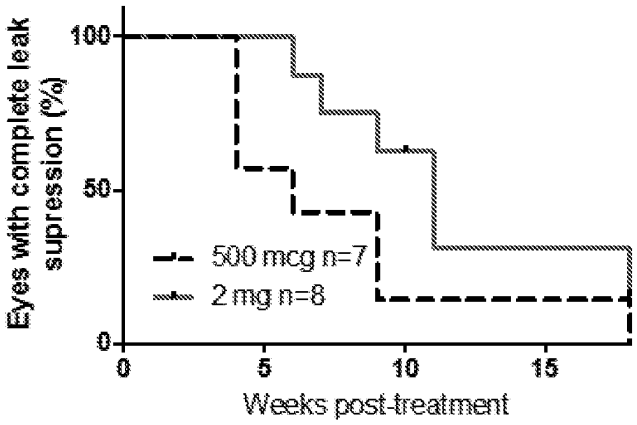

Eyes with complete leak supression (%)
100
50
0
0
5
10
15
Weeks post-treatment
500 mcg n=7
2 mg n=8

FIG. 21