Figure 1

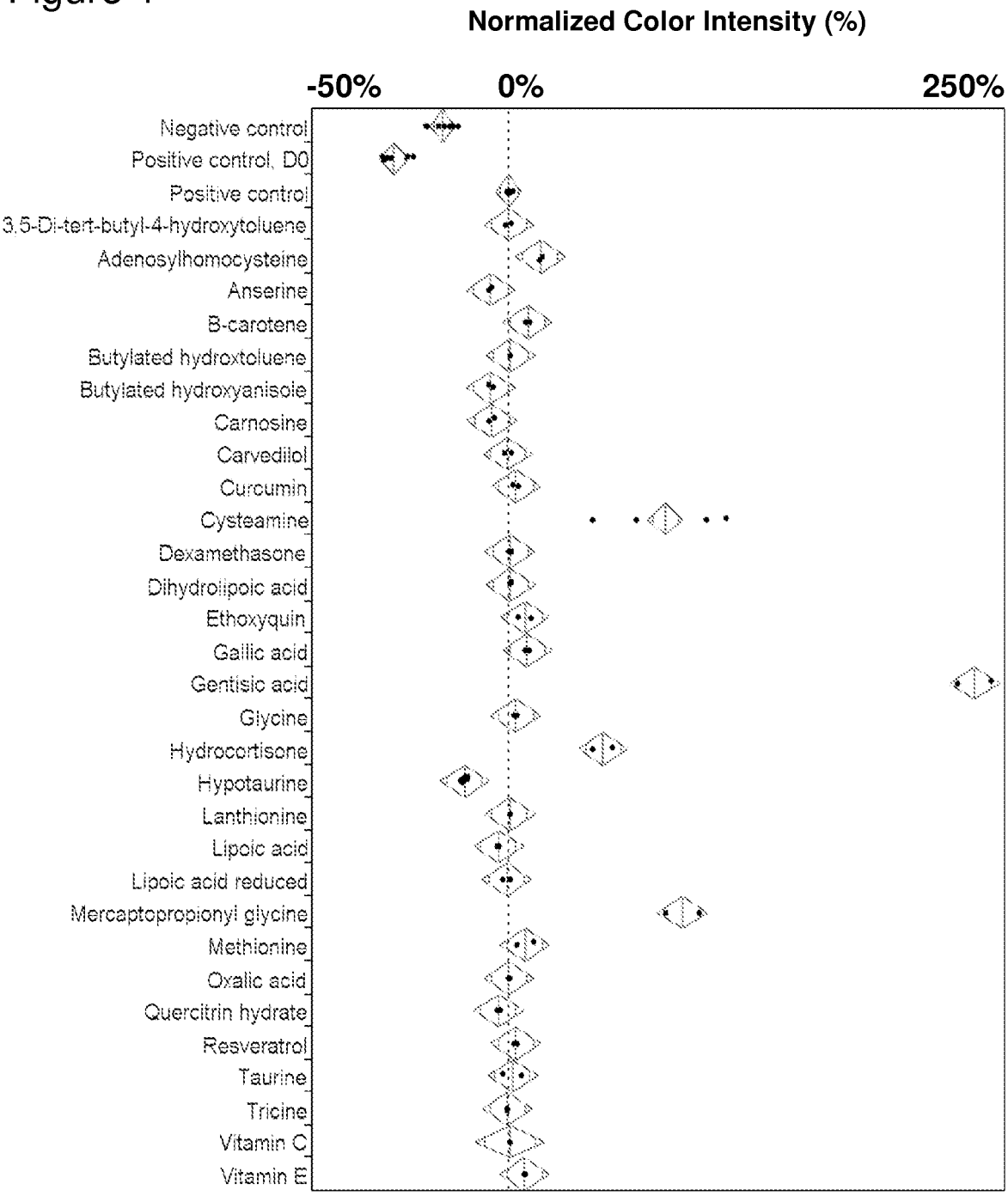

Normalized Color Intensity (%)
-50%
0%
250%
Negative control
Positive control, D0
Positive control
3,5-Di-tert-butyl-4-hydroxytoluene
Adenosylhomocysteine
Anserine
B-carotene
Butylated hydroxtoluene
Butylated hydroxyanisole
Carnosine
Carvedilol
Curcumin
Cysteamine
Dexamethasone
Dihydrolipoic acid
Ethoxyquin
Gallic acid
Gentisic acid
Glycine
Hydrocortisone
Hypotaurine
Lanthionine
Lipoic acid
Lipoic acid reduced
Mercaptopropionyl glycine
Methionine
Oxalic acid
Quercitrin hydrate
Resveratrol
Taurine
Tricine
Vitamin C
Vitamin E

Figure 2

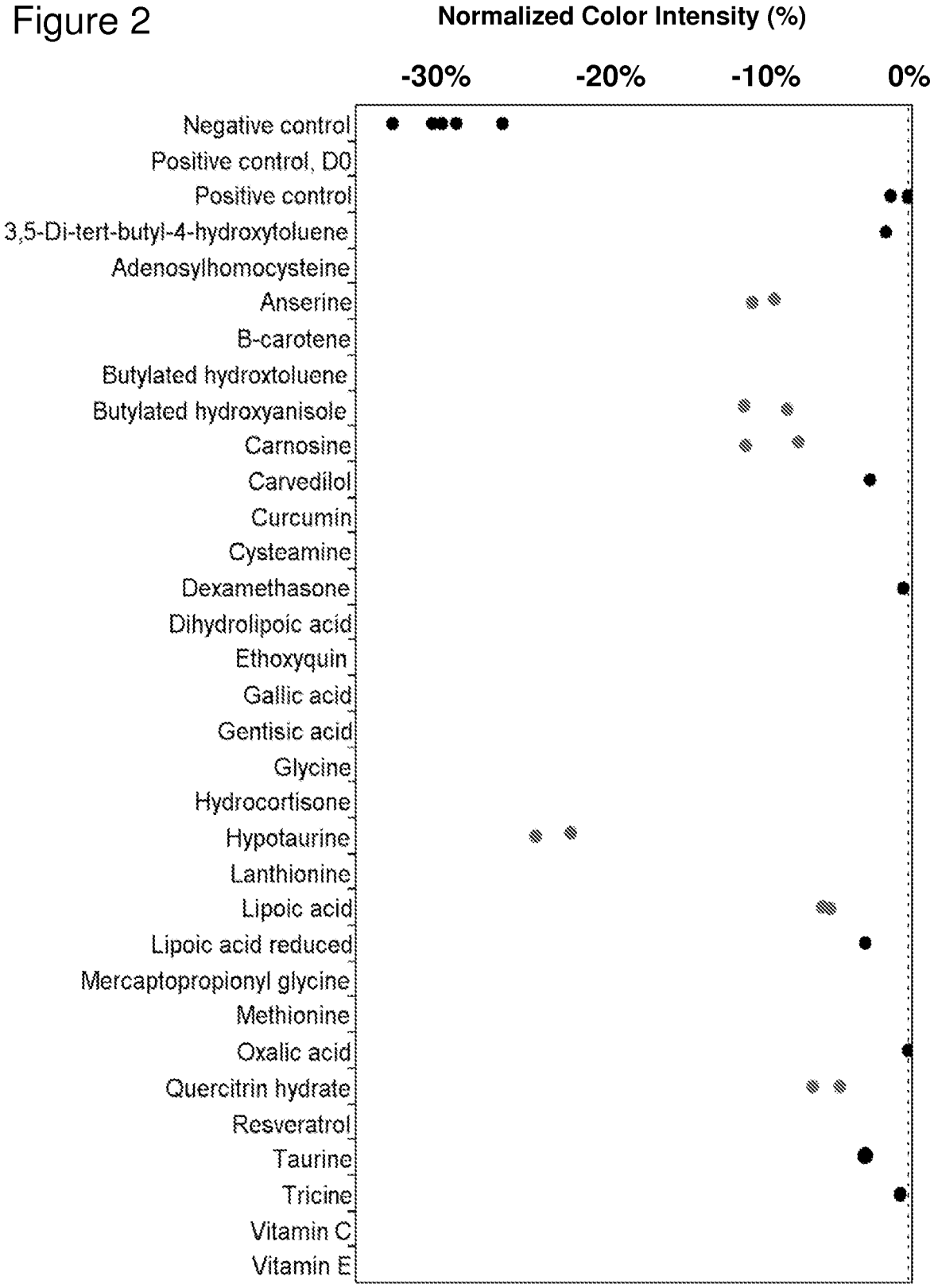
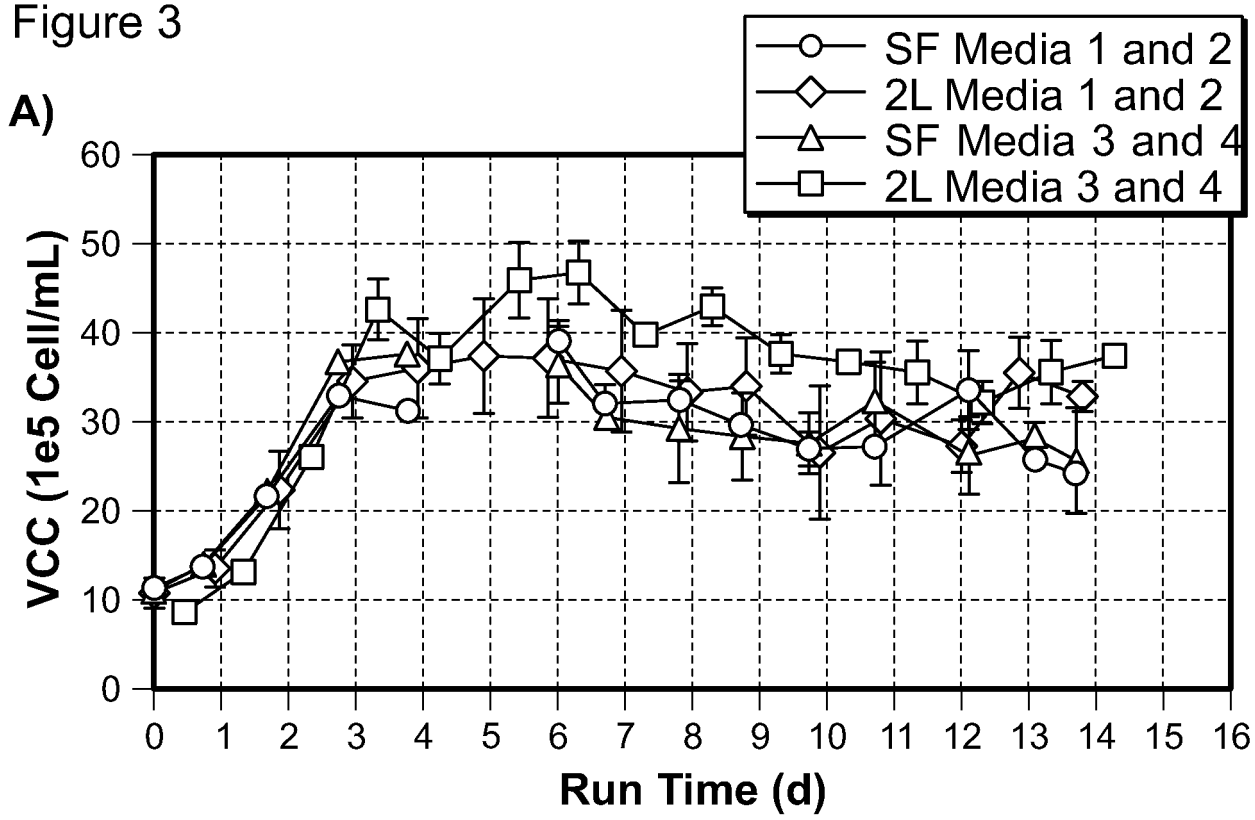

Normalized Color Intensity (%)
-30%
-20%
-10%
0%
Negative control
Positive control, D0
Positive control
3,5-Di-tert-butyl-4-hydroxytoluene
Adenosylhomocysteine
Anserine
B-carotene
Butylated hydroxtoluene
Butylated hydroxyanisole
Carnosine
Carvedilol
Curcumin
Cysteamine
Dexamethasone
Dihydrolipoic acid
Ethoxyquin
Gallic acid
Gentisic acid
Glycine
Hydrocortisone
Hypotaurine
Lanthionine
Lipoic acid
Lipoic acid reduced
Mercaptopropionyl glycine
Methionine
Oxalic acid
Quercitrin hydrate
Resveratrol
Taurine
Tricine
Vitamin C
Vitamin E

Figure 3


A)
SF Media 1 and 2
2L Media 1 and 2
SF Media 3 and 4
2L Media 3 and 4
VCC (1e5 Cell/mL)
0
10
20
30
40
50
60
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Run Time (d)

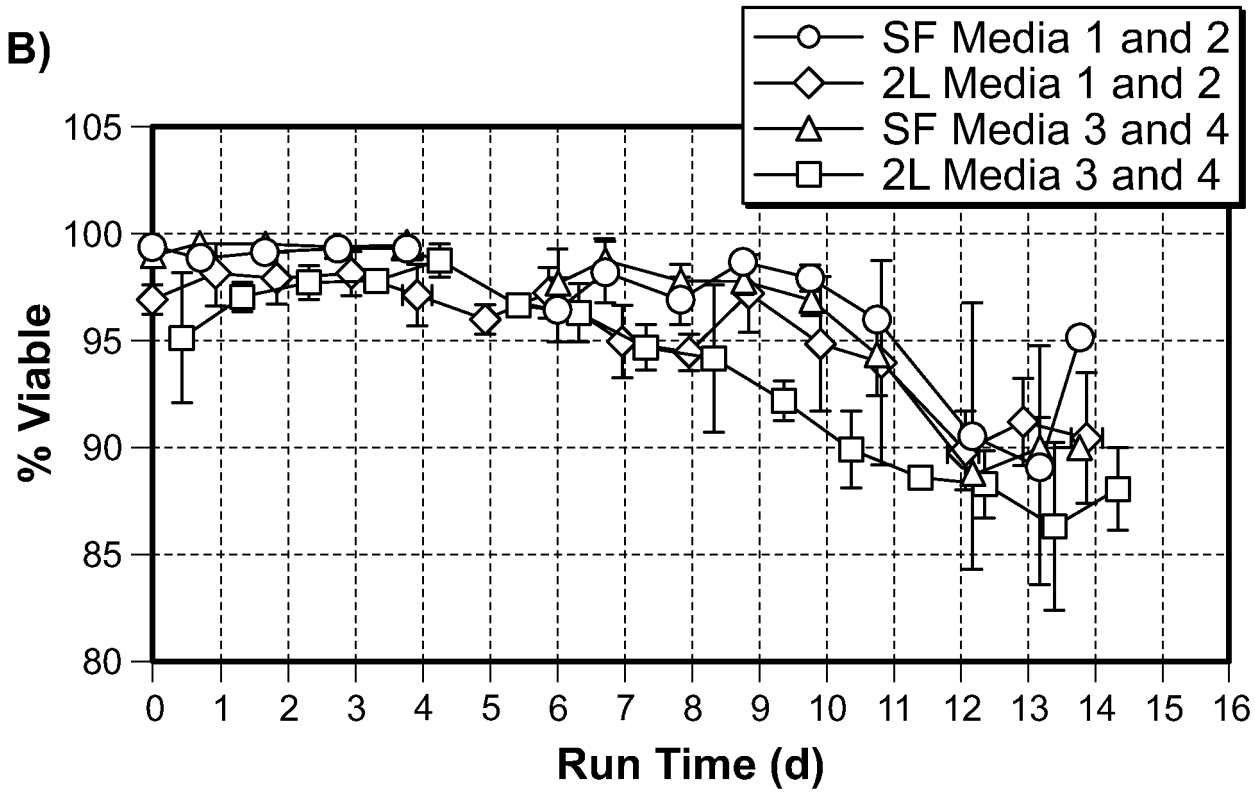

B)
SF Media 1 and 2
2L Media 1 and 2
SF Media 3 and 4
2L Media 3 and 4
% Viable
80
85
90
95
100
105
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16
Run Time (d)

Figure 3

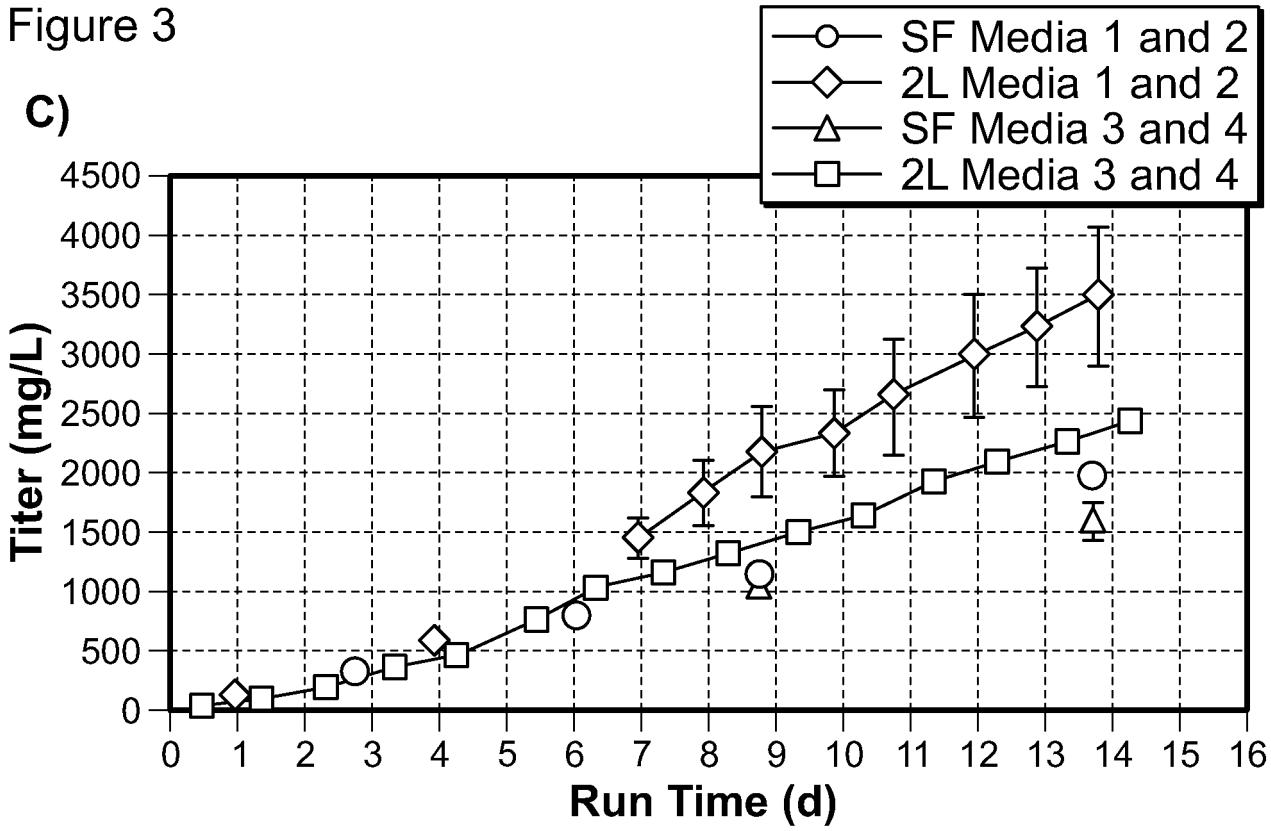


Figure 4

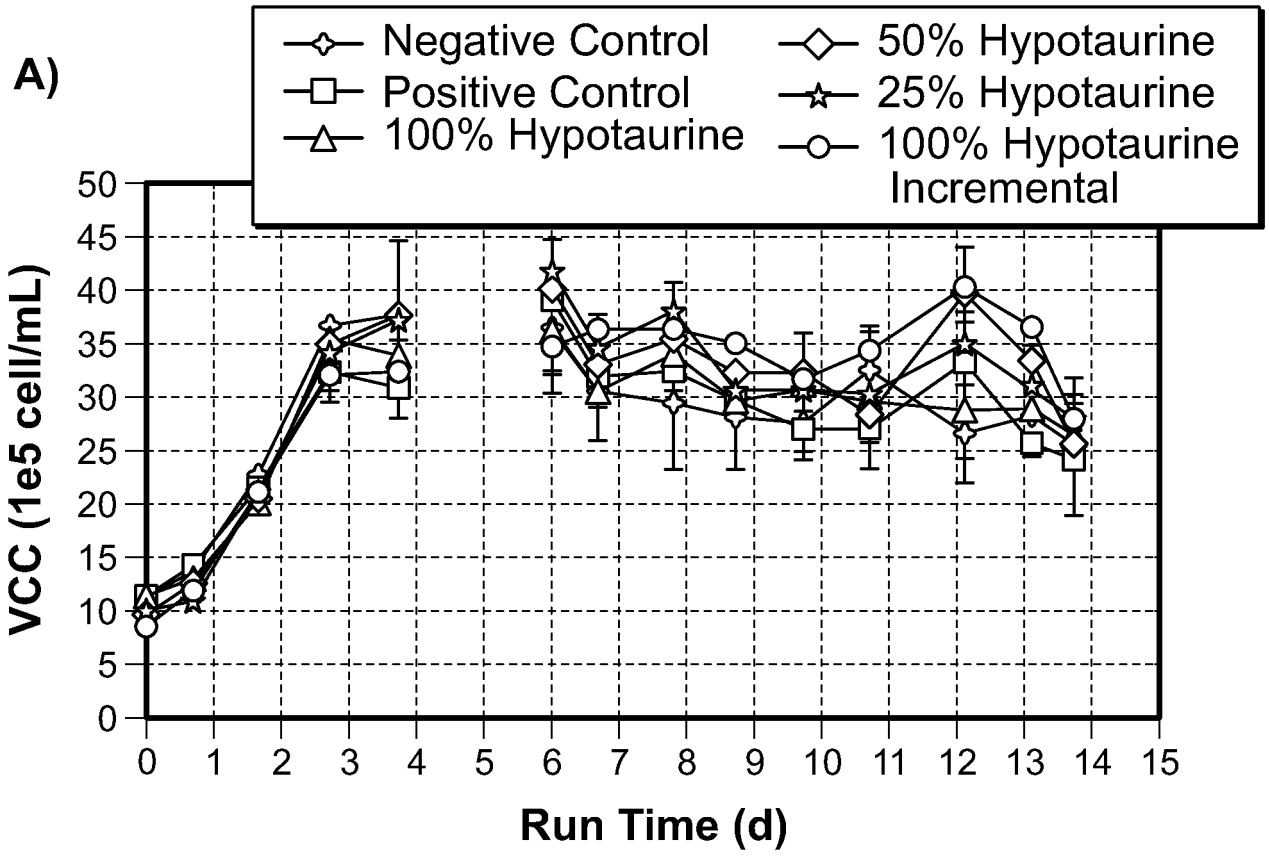
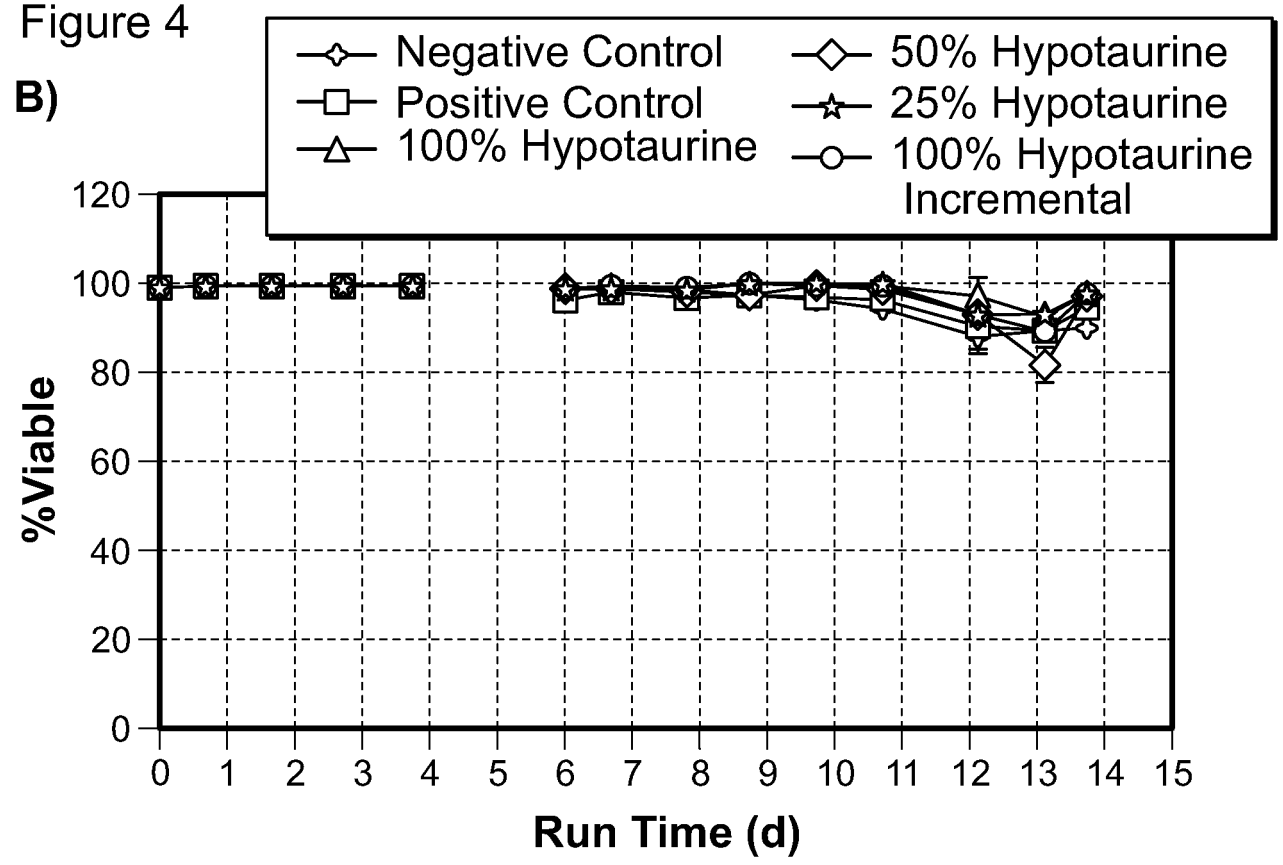


Figure 4


B)
Negative Control
Positive Control
100% Hypotaurine
50% Hypotaurine
25% Hypotaurine
100% Hypotaurine Incremental
%Viable
120
100
80
60
40
20
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Run Time (d)

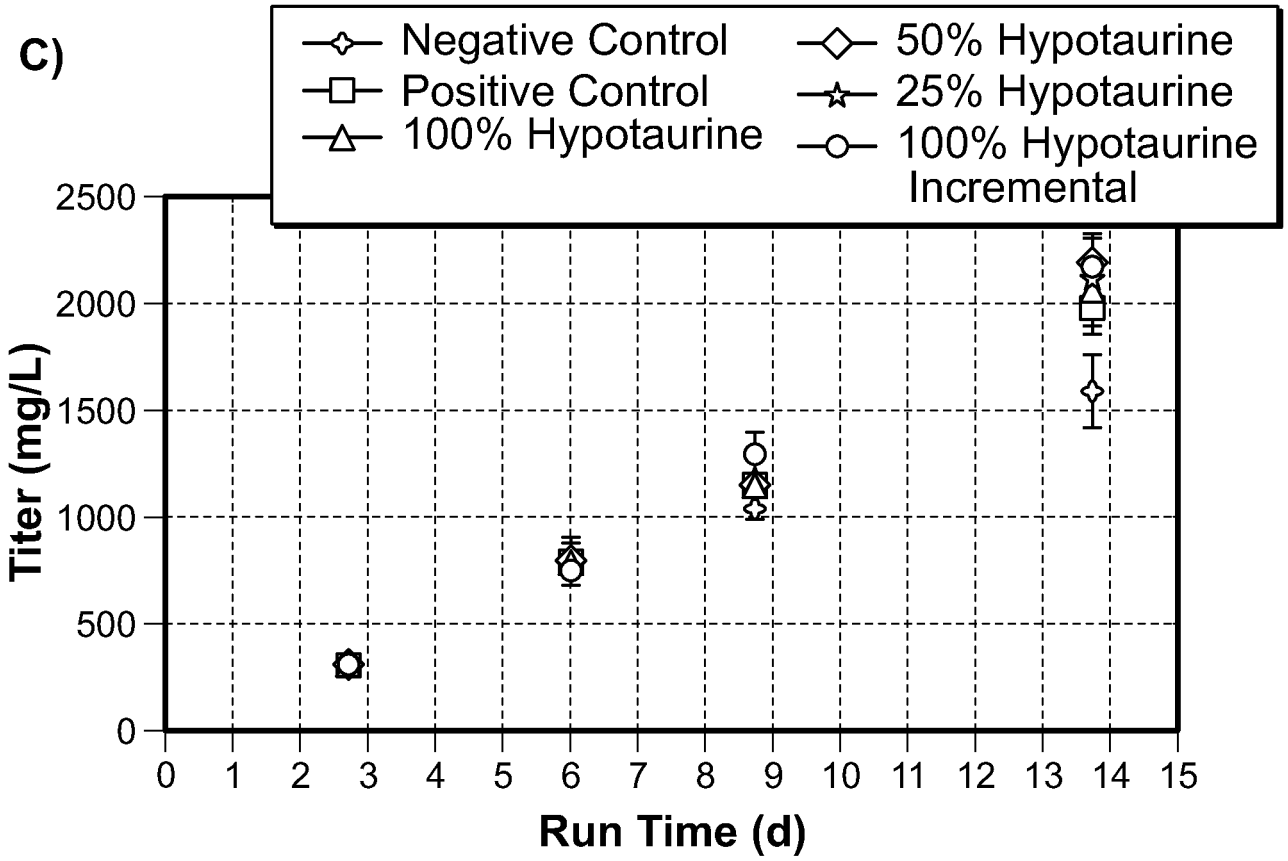

C)
Negative Control
Positive Control
100% Hypotaurine
50% Hypotaurine
25% Hypotaurine
100% Hypotaurine Incremental
Titer (mg/L)
2500
2000
1500
1000
500
0
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Run Time (d)

Figure 5

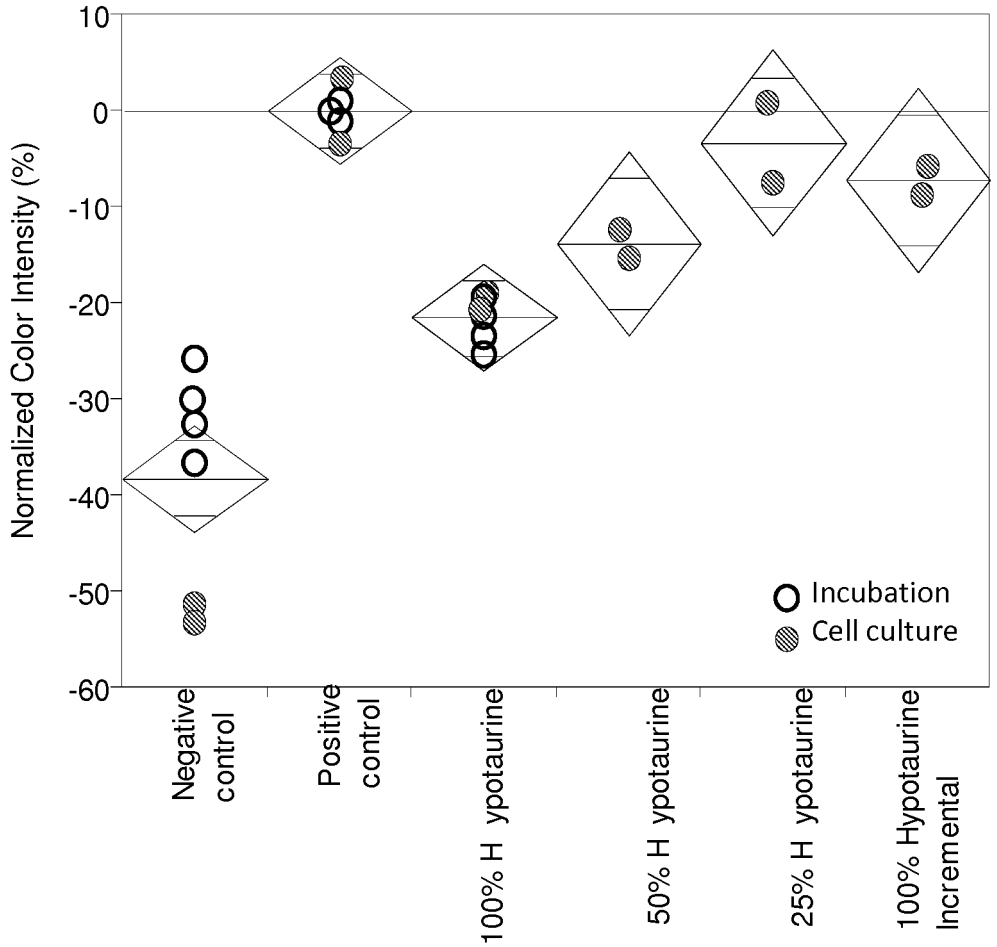

Normalized Color Intensity (%)
10
0
-10
-20
-30
-40
-50
-60
Incubation
Cell culture
Negative control
Positive control
100% H ypotaurine
50% H ypotaurine
25% H ypotaurine
100% Hypotaurine Incremental

Figure 6

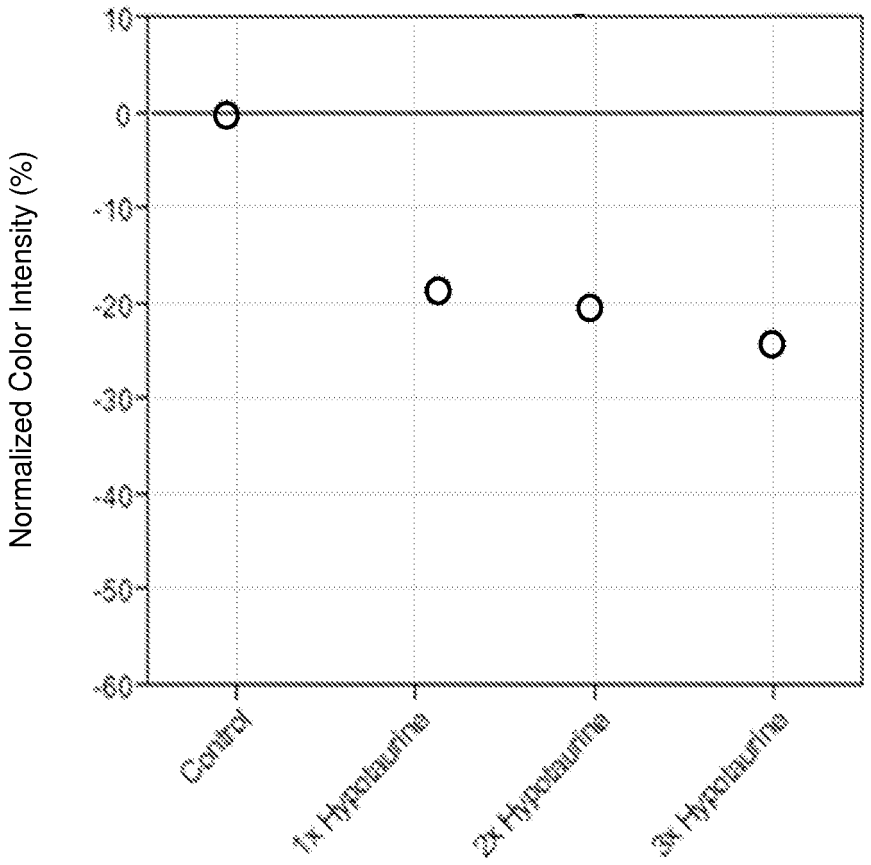

Normalized Color Intensity (%)
10
0
-10
-20
-30
-40
-50
-60
Control
1x Hypobaurine
2x Hypobaurine
3x Hypobaurine

Figure 7

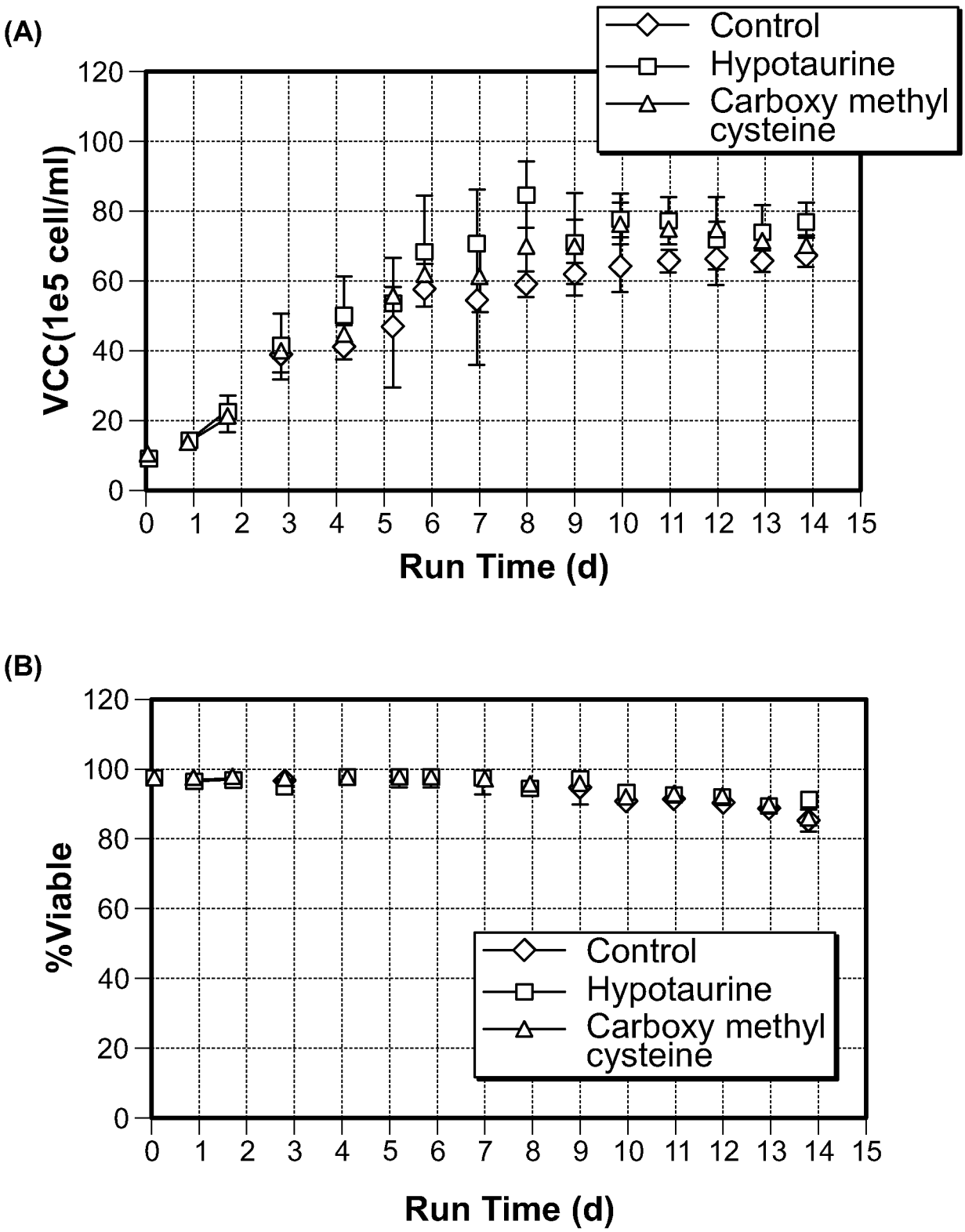

(A)
Control
Hypotaurine
Carboxy methyl cysteine
VCC(1e5 cell/ml)
0
20
40
60
80
100
120
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Run Time (d)
(B)
%Viable
0
20
40
60
80
100
120
Control
Hypotaurine
Carboxy methyl cysteine
0 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15
Run Time (d)

Figure 8

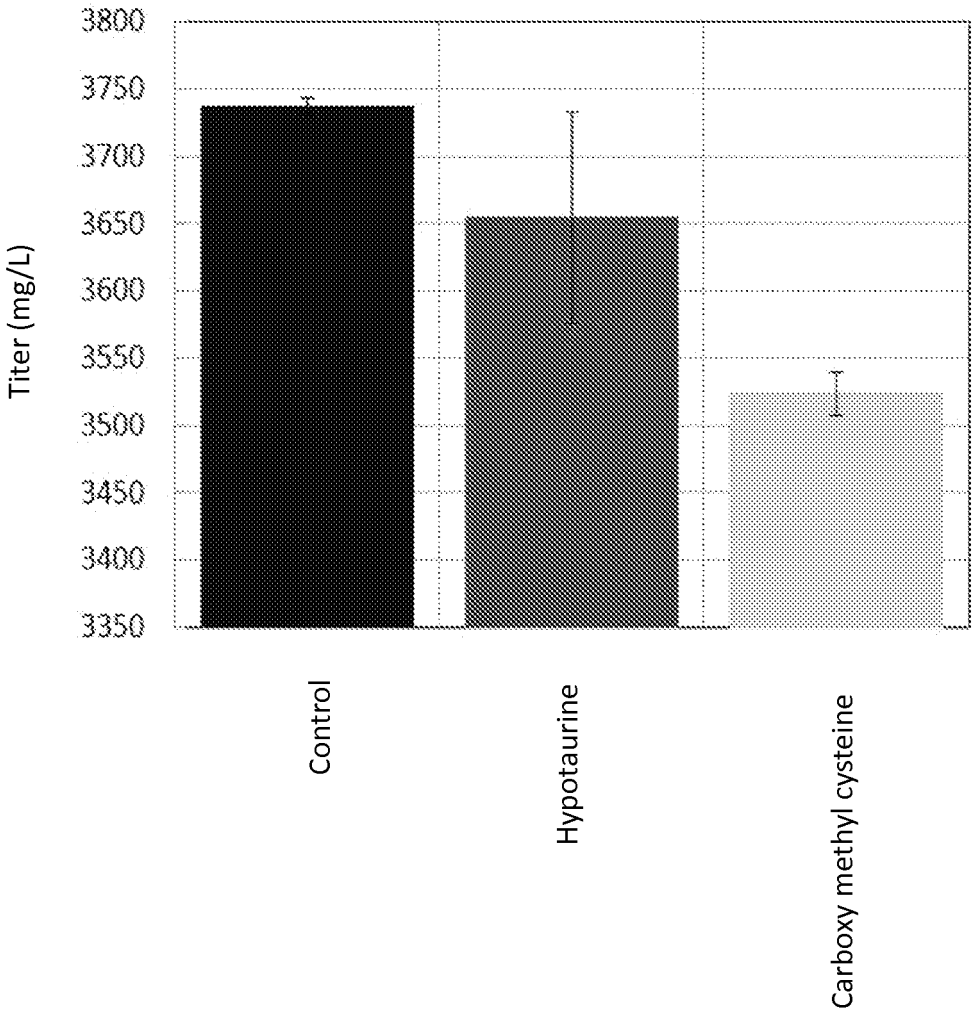
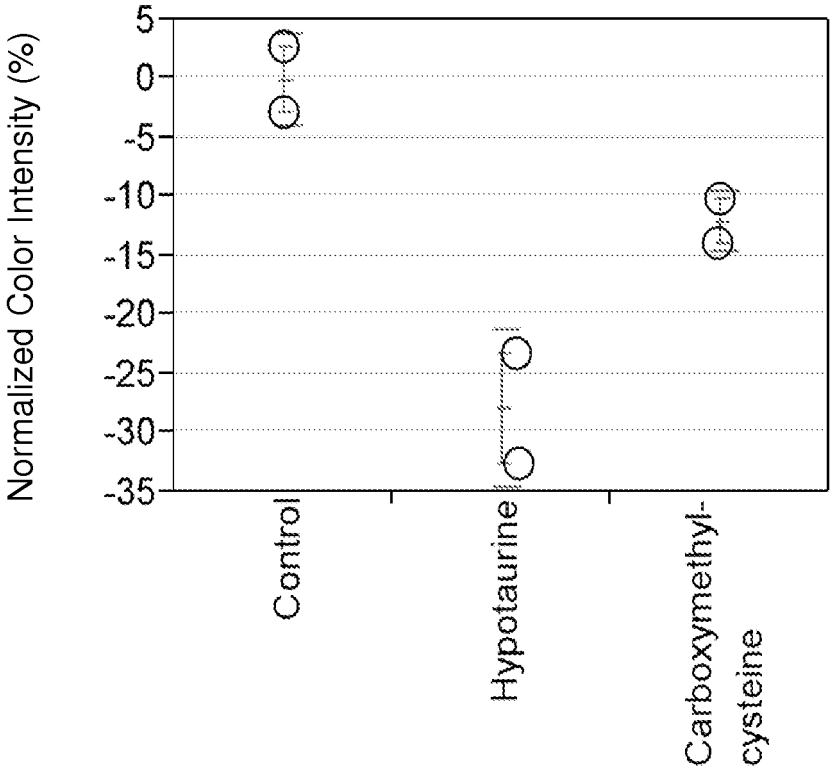

3800
3750
3700
3650
3600
3550
3500
3450
3400
3350
Titer (mg/L)
Control
Hypotaurine
Carboxy methyl cysteine

Figure 9

A)


Normalized Color Intensity (%)
5
0
-5
-10
-15
-20
-25
-30
-35
Control
Hypotaurine
Carboxymethyl-cysteine

B)

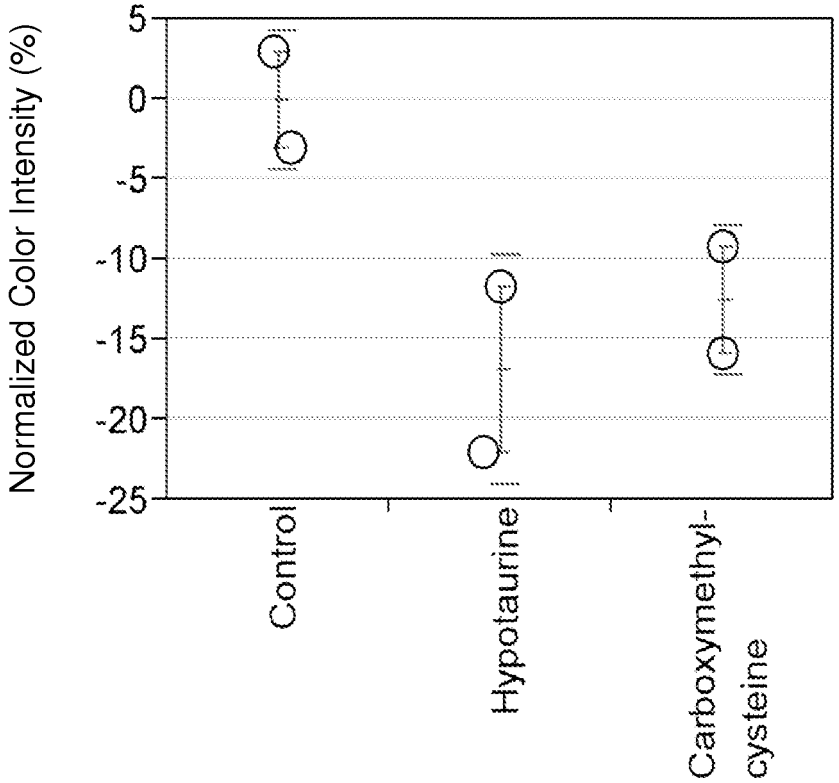
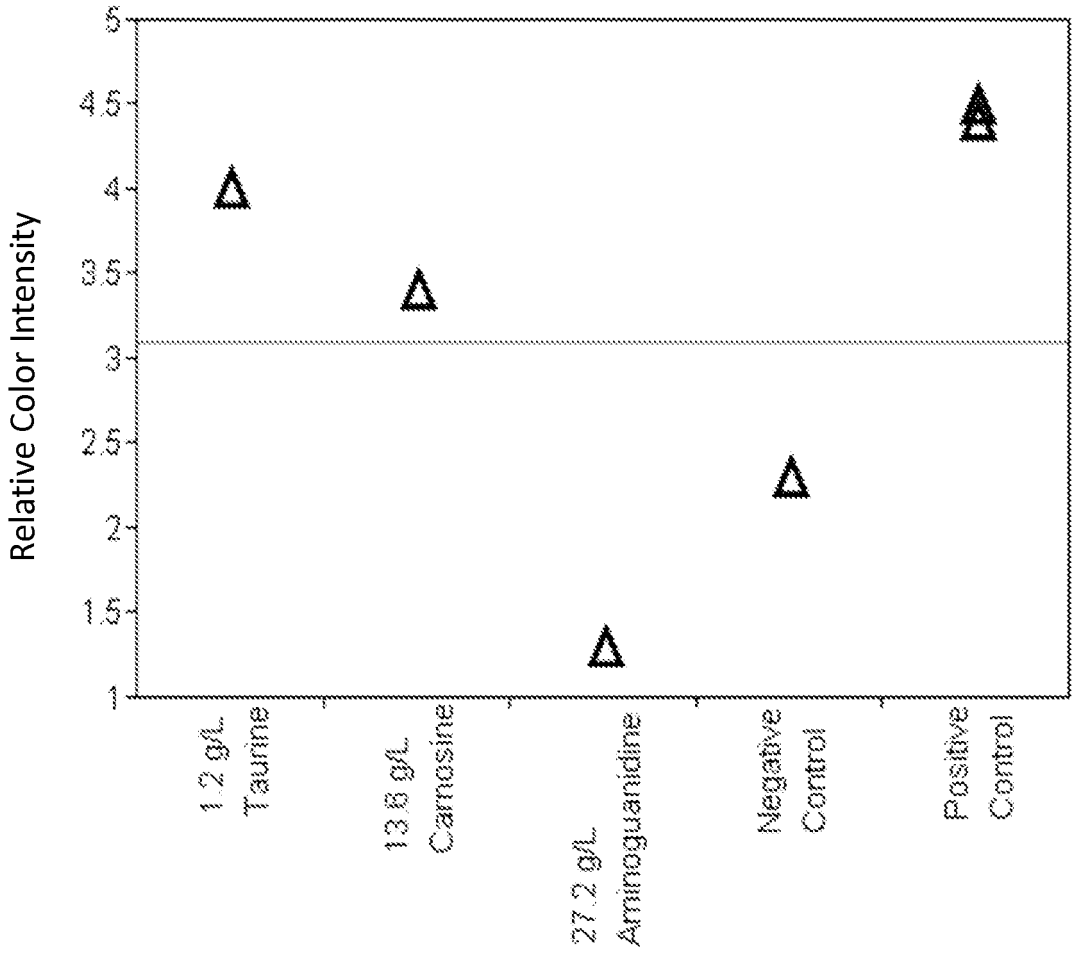

Normalized Color Intensity (%)
5
0
-5
-10
-15
-20
-25
Control
Hypotaurine
Carboxymethyl-cysteine

Figure 10


Relative Color Intensity
5
4.5
4
3.5
3
2.5
2
1.5
1
1.2 g/L Taurine
13.6 g/L Carnosine
27.2 g/L Aminoguanidine
Negative Control
Positive Control