FIG. 1

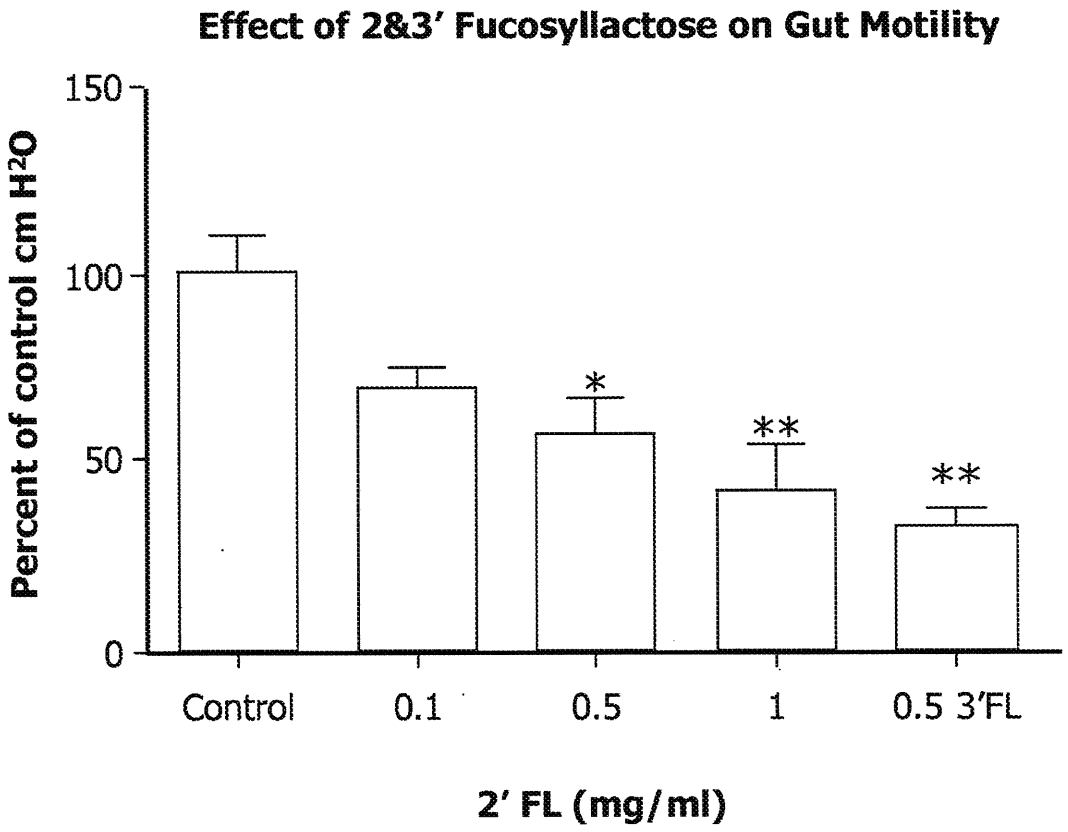

Effect of 2&3' Fucosyllactose on Gut Motility
Percent of control cm H2O
150
100
50
0
*
**
**
Control
0.1
0.5
1
0.5 3'FL
2' FL (mg/ml)

FIG. 2

Table 1. Composition of microbiological medium used in the *in vitro* experiment.

Component	Concentration in medium
	mL/L
Solution A[1]	330.0
Solution B[2]	330.0
Trace mineral solution[3]	10.0
Water-soluble vitamin solution[4]	20.0
Folate:biotin solution[5]	5.0
Riboflavin solution[6]	5.0
Hemin solution[7]	2.5
Resazurin[8]	1.0
Distilled H_2O	296.1
	g/L
Na_2CO_3	4.0
Cysteine HCl-H_2O	0.5
Trypticase	0.5
Yeast extract	0.5

[1]Composition (g/L): NaCl, 5.4; KH_2PO_4, 2.7; $CaCl_2$-H_2O, 0.16; $MgCl_2$-$6H_2O$, 0.12; $MnCl_2$-$4H_2O$, 0.06; $CoCl_2$-$6H_2O$, 0.06; $(NH_4)_2SO_4$, 5.4.

[2]Composition (g/L): K_2HPO_4, 2.7.

[3]Composition (mg/L): ethylenediaminetetraacetic acid (disodium salt), 500; $FeSO_4$-$7H_2O$, 200; $ZnSO_4$-$7H_2O$, 10; $MnCl_2$-$4H_2O$, 3; H_3PO_4, 30; $CoCl_2$-$6H_2O$, 20; $CuCl_2$-$2H_2O$, 1; $NiCl_2$-$6H_2O$, 2; Na_2MoO_4-$2H_2O$, 3.

[4]Composition (mg/L): thiamin-HCl, 100; d-pantothenic acid, 100; niacin, 100; pyridoxine, 100; p-aminobenzoic acid, 5; vitamin B_{12}, 0.25.

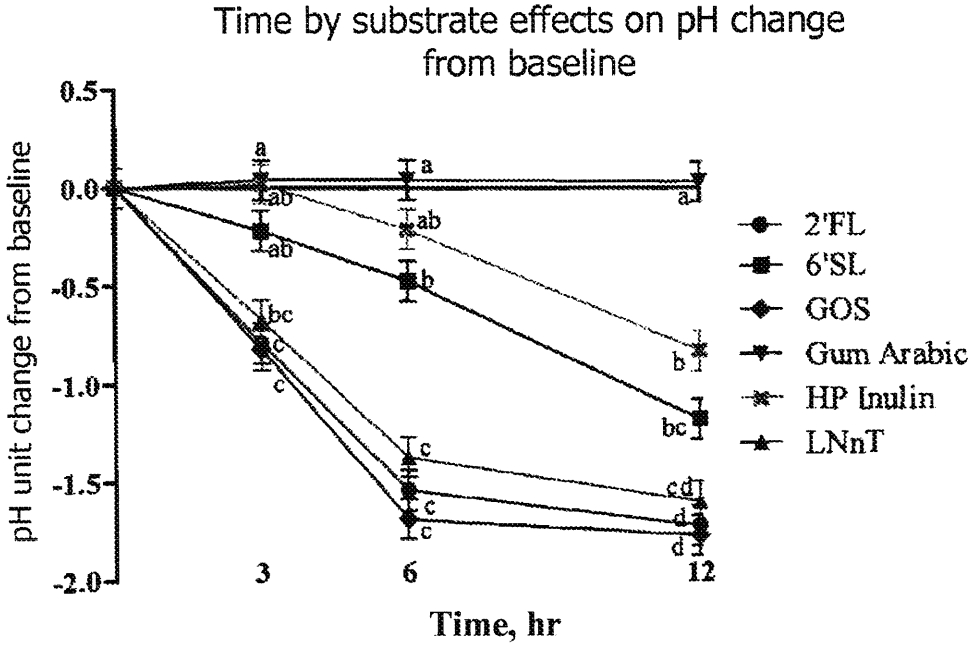
[5]Composition (mg/L): folic acid, 10; d-biotin, 2; NH_4HCO_3, 100.

[6]Composition: riboflavin, 10 mg/mL in 5 mmol/L of Hepes.

[7]Composition: hemin, 500 mg/mL in 10 mmol/L of NaOH.

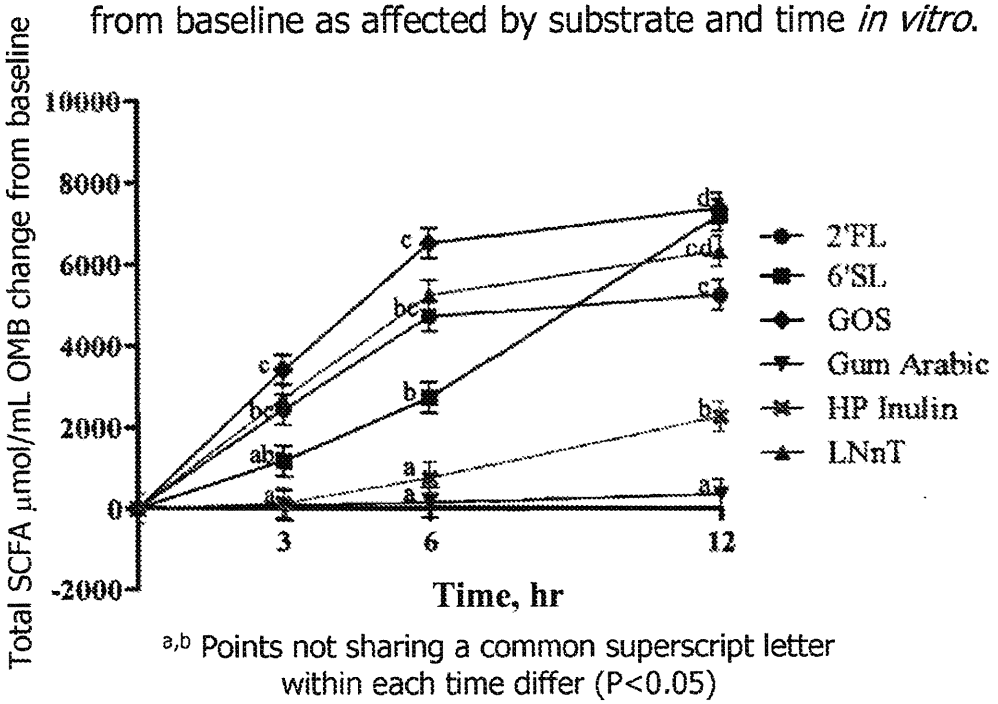
[8]Composition: resazurin, 1 g/L in distilled H_2O.

FIG. 3



[a,b] Points not sharing a common superscript letter within each time differ (P<0.05)

FIG. 4



[a,b] Points not sharing a common superscript letter within each time differ (P<0.05)

FIG. 5A

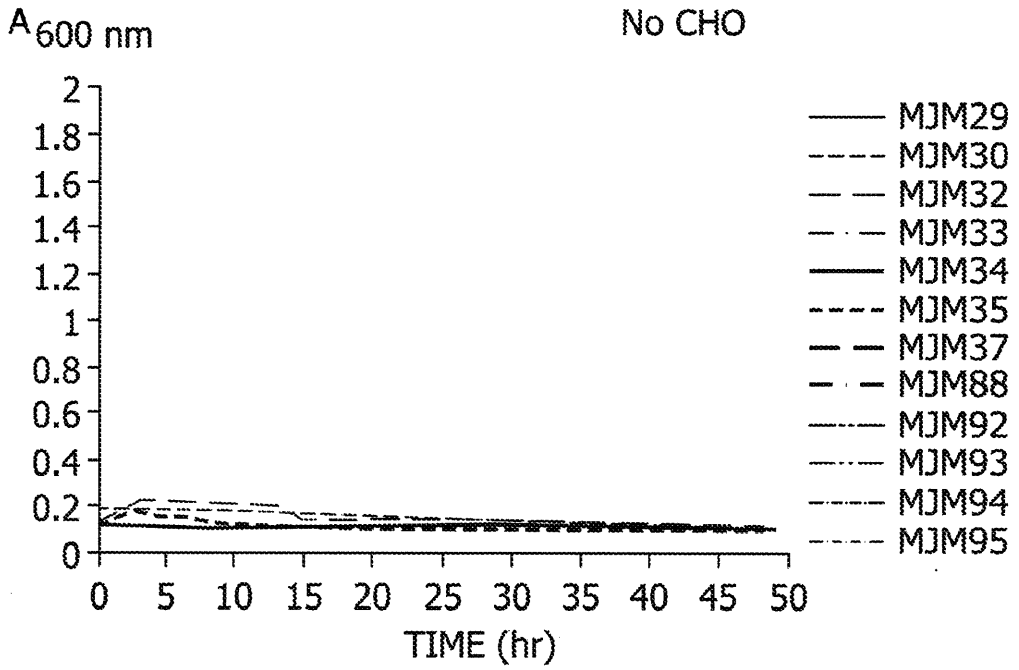

A600 nm
No CHO
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 5B

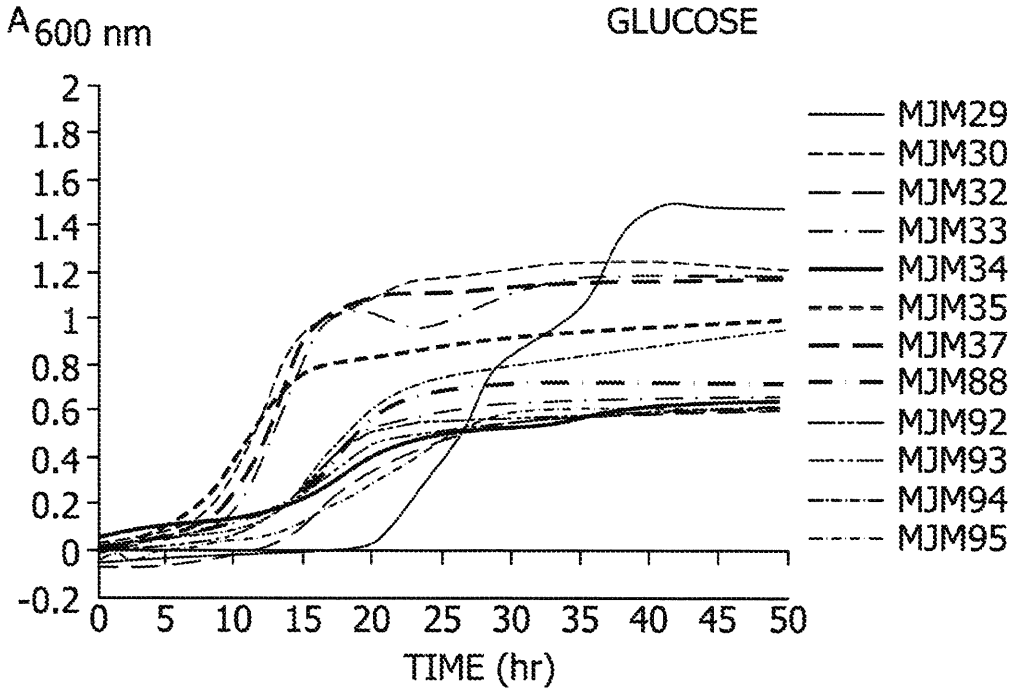

A600 nm
GLUCOSE
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 5C

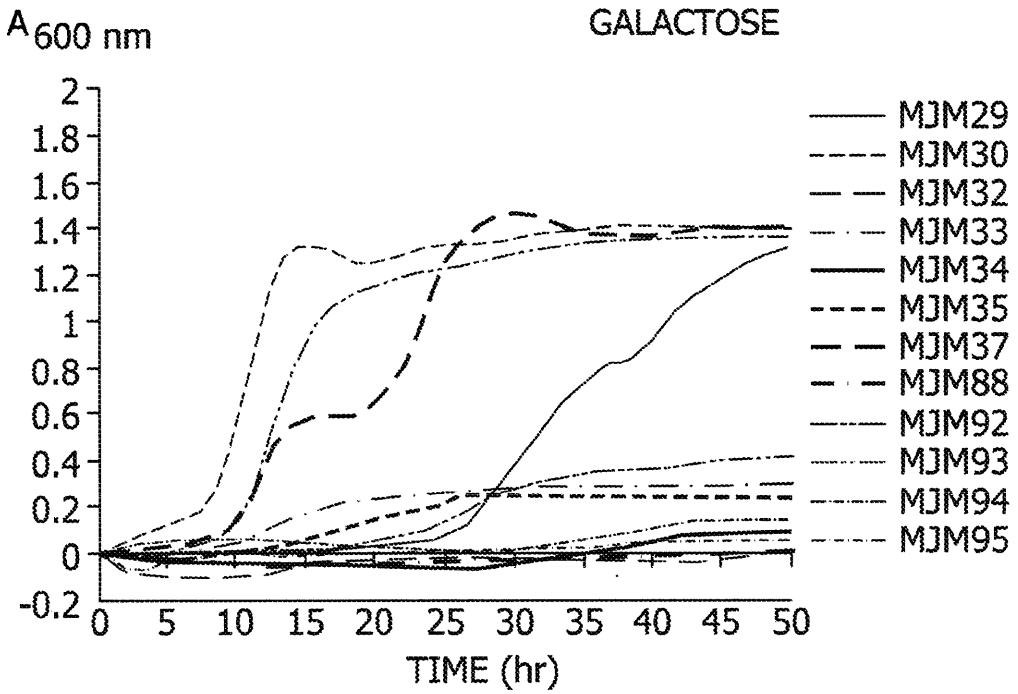

A600 nm
GALACTOSE
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 5D

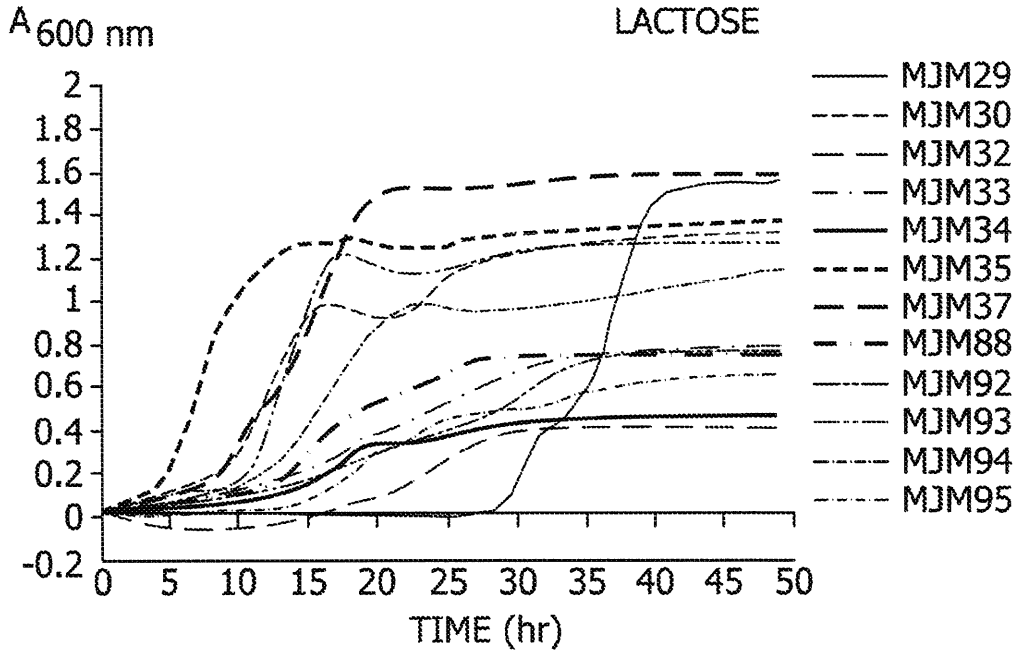

A600 nm
LACTOSE
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 5E

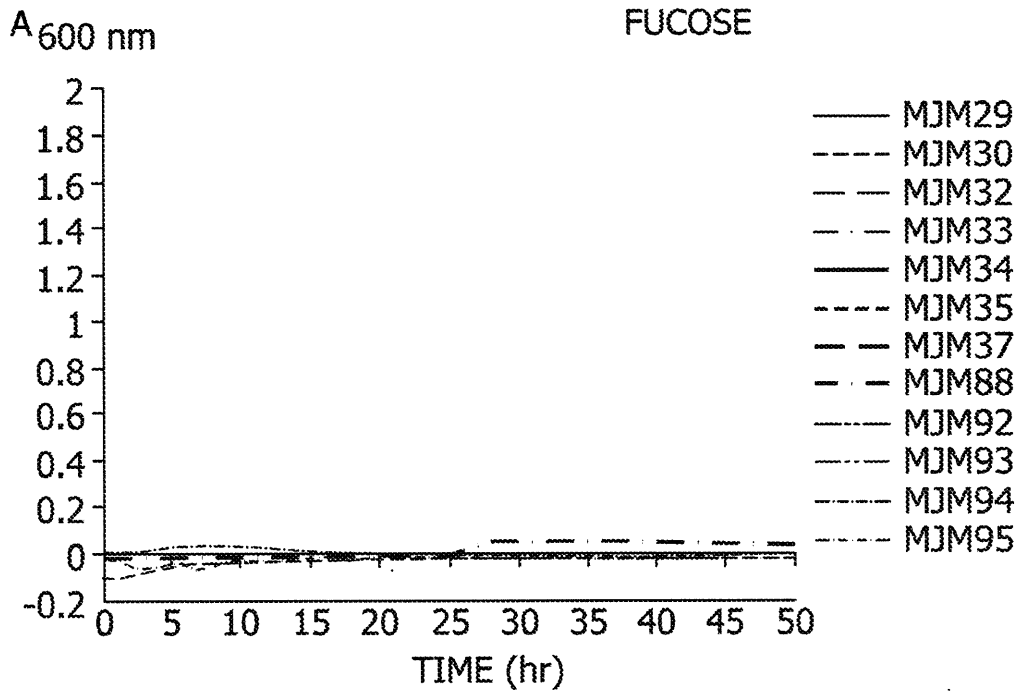

A600 nm
FUCOSE
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 5F

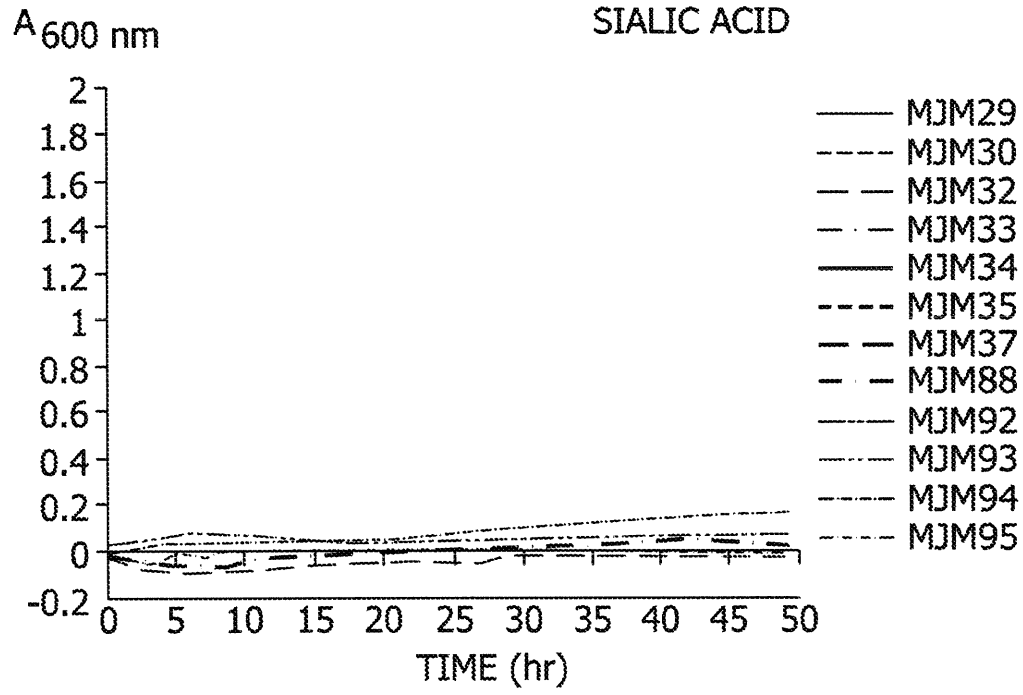

A600 nm
SIALIC ACID
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 5G

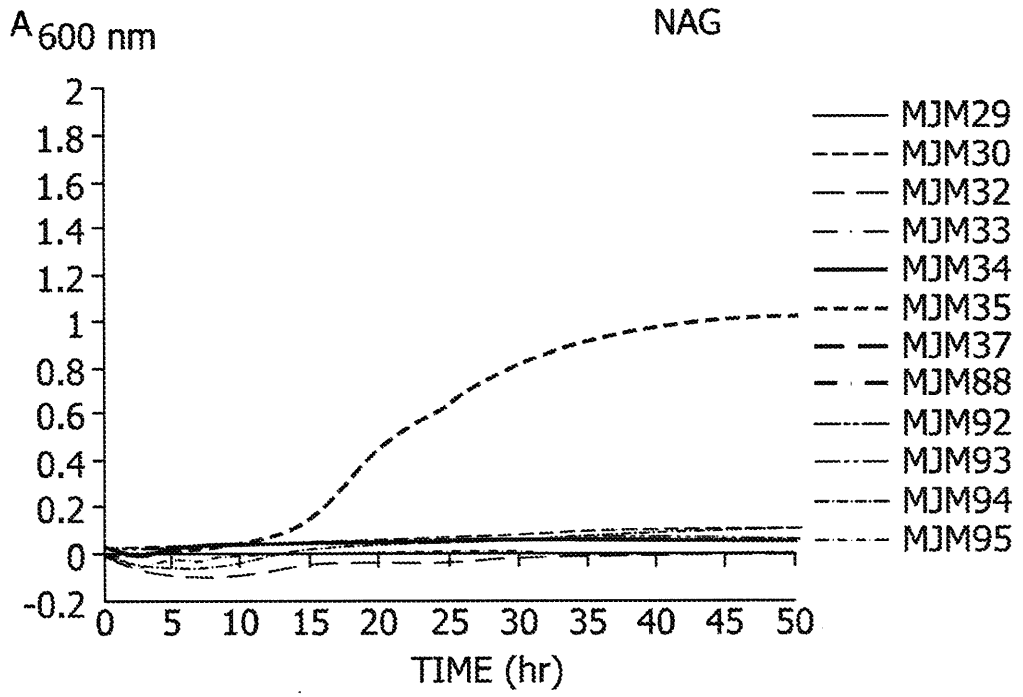

A600 nm
NAG
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 5H

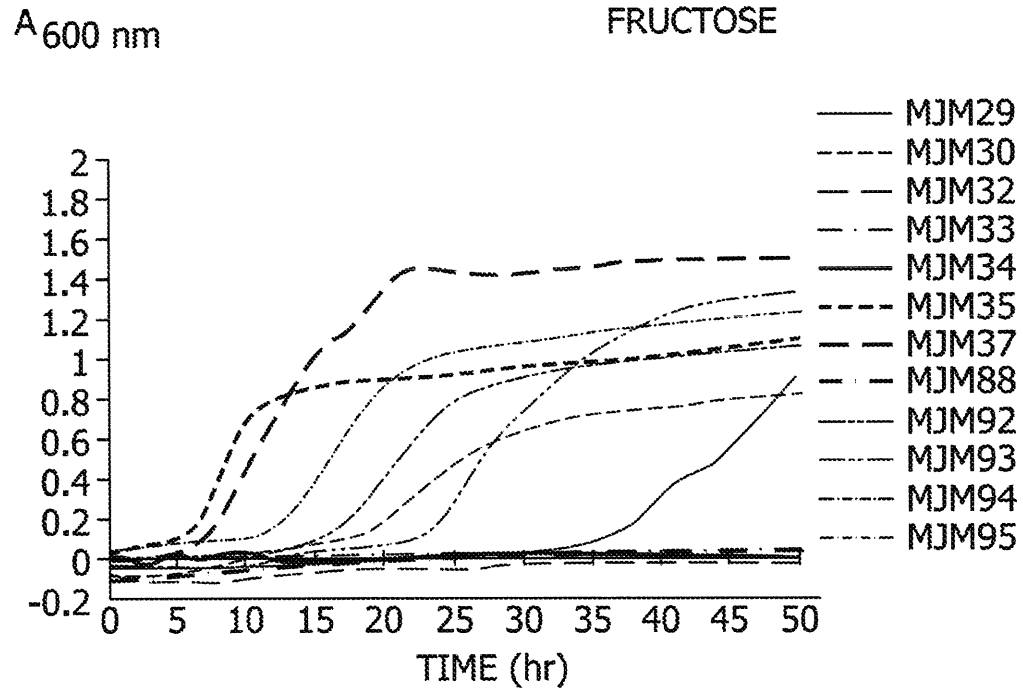

A600 nm
FRUCTOSE
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 6A

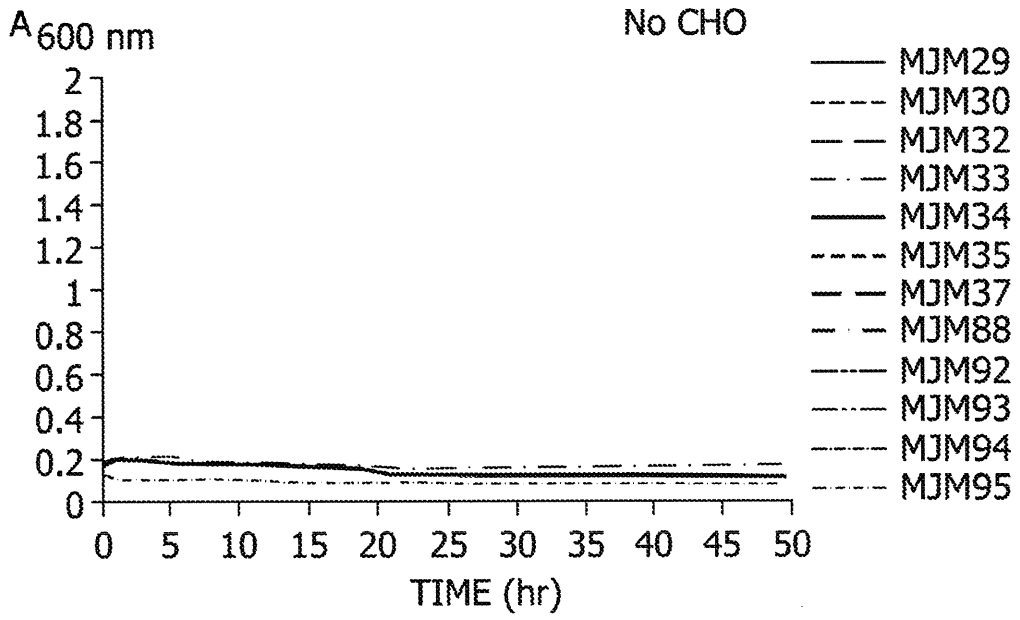

A600 nm
No CHO
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 6B

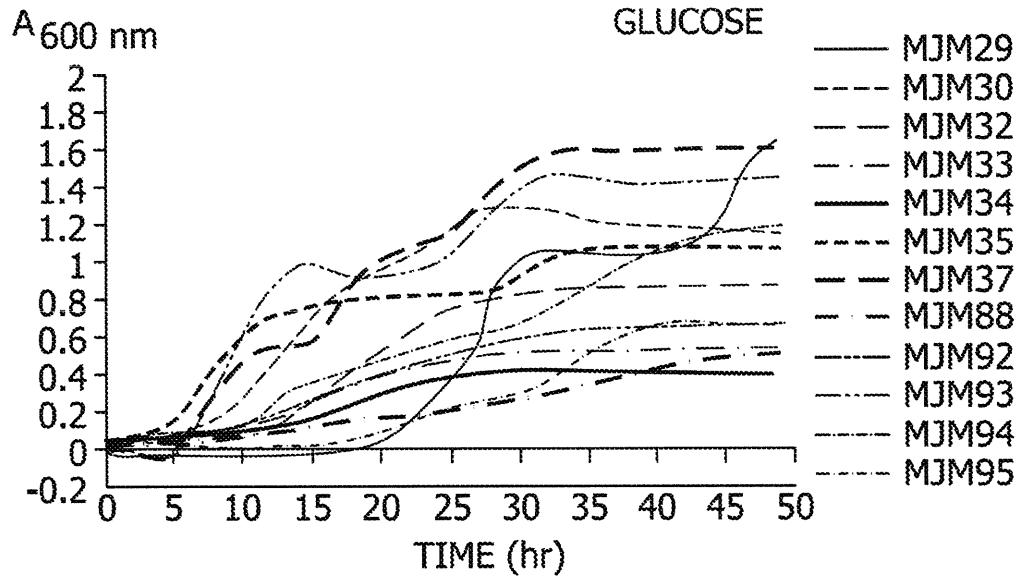

A600 nm
GLUCOSE
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 6C

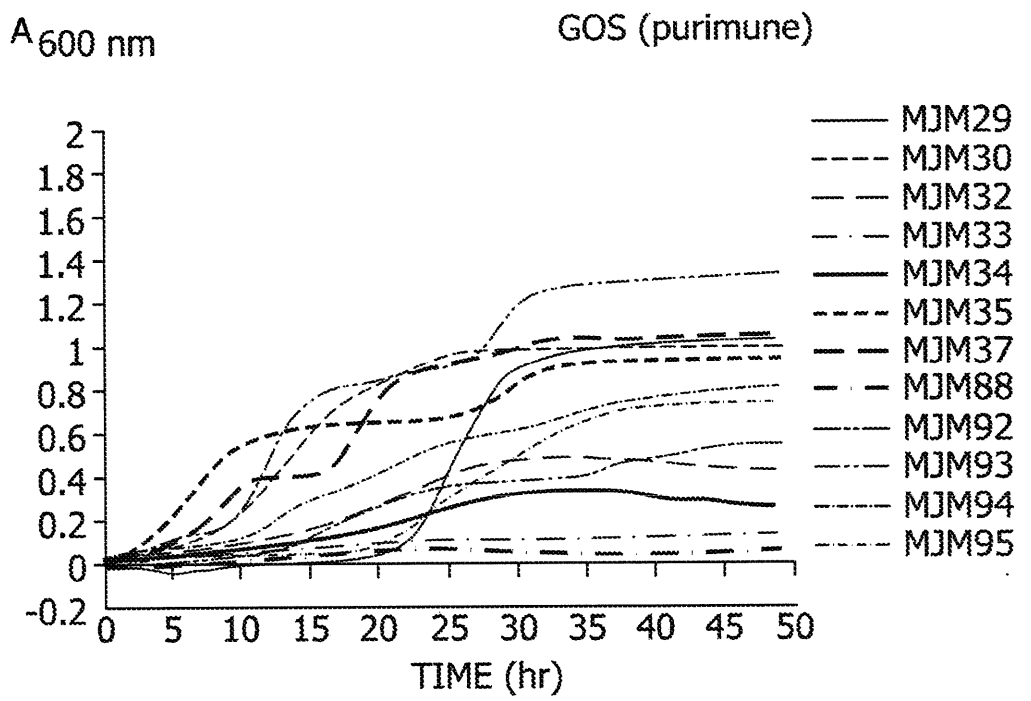

A600 nm
GOS (purimune)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)

FIG. 6D

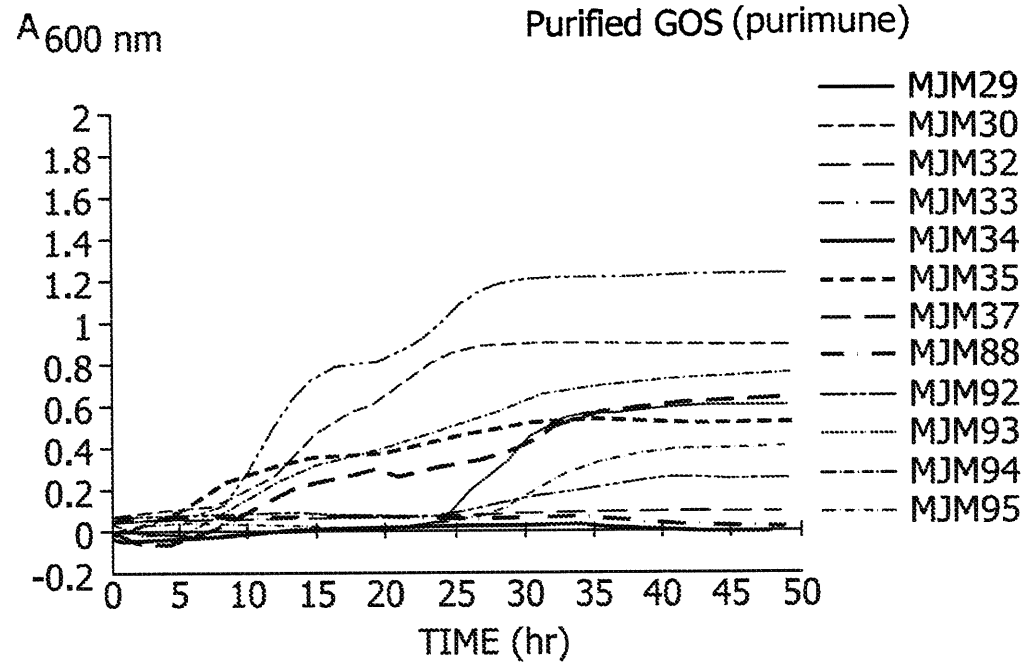

A600 nm
Purified GOS (purimune)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)

FIG. 6E

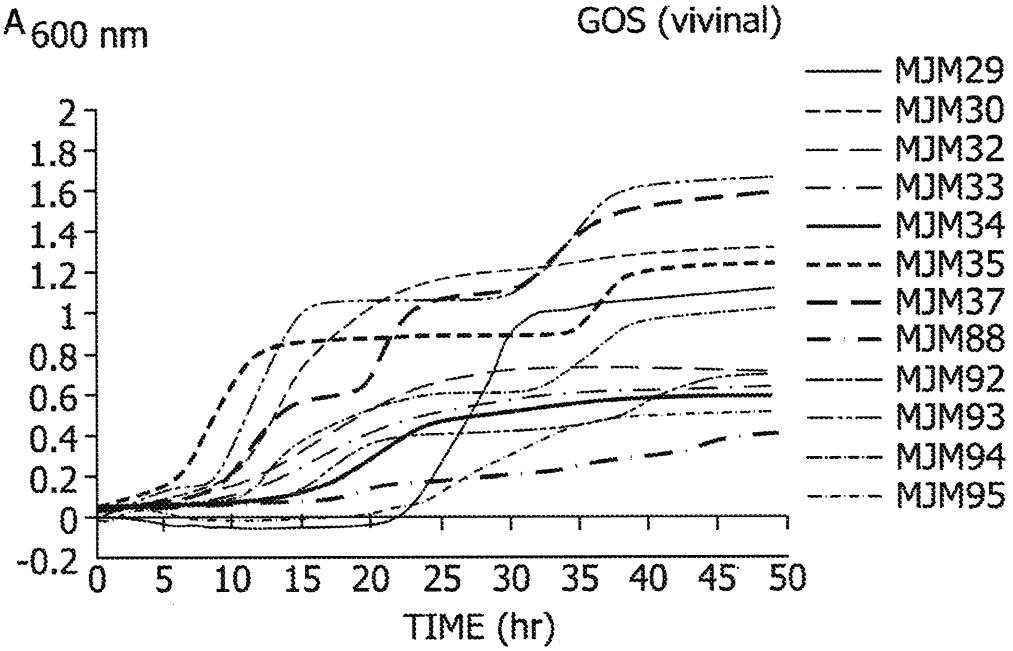

A600 nm
GOS (vivinal)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)

FIG. 6F

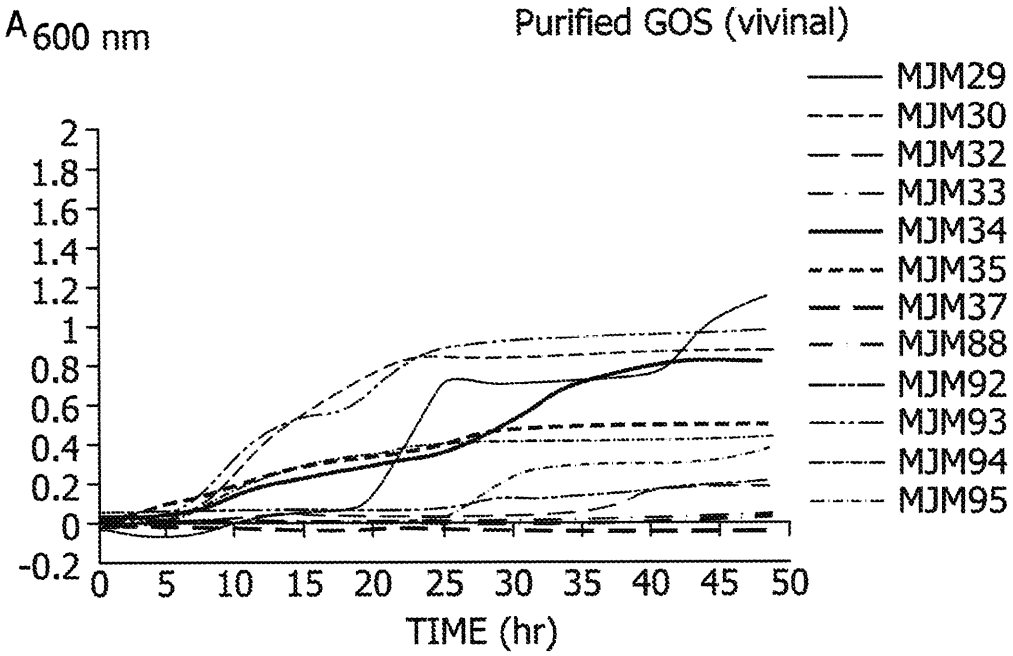

A600 nm
Purified GOS (vivinal)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)

FIG. 6G

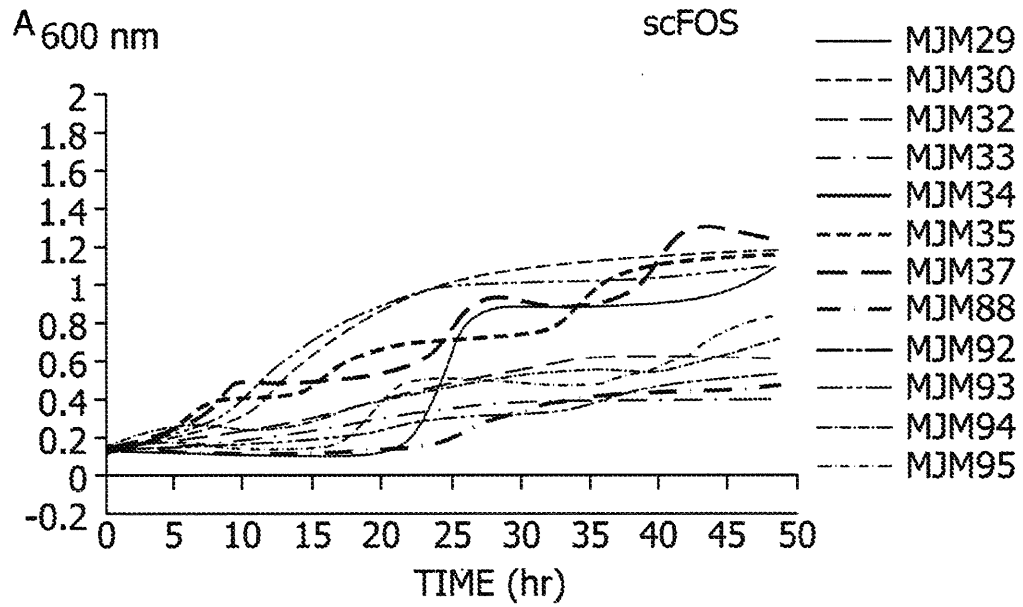

A 600 nm
scFOS
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)

FIG. 6H

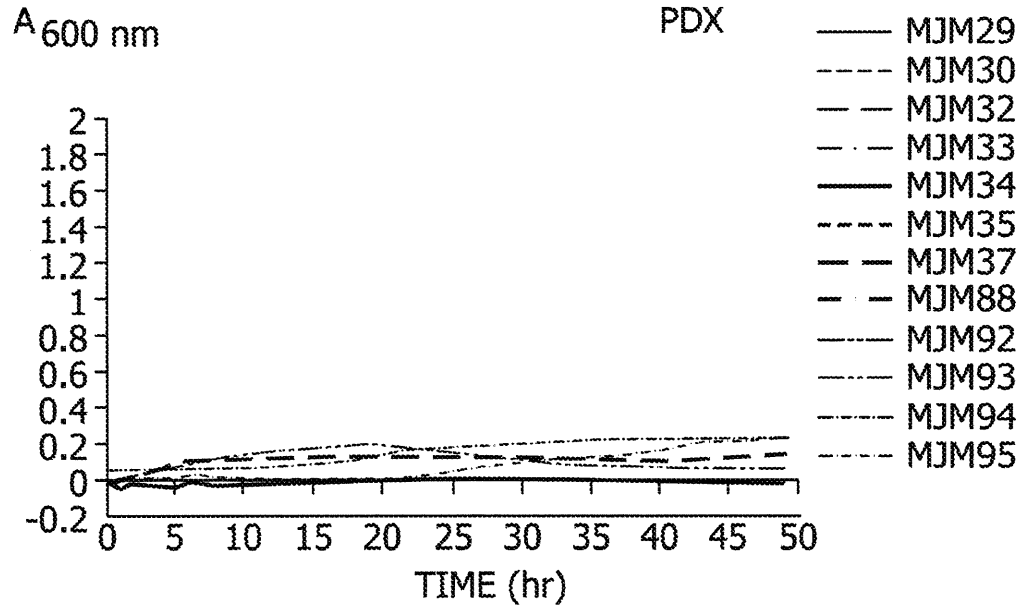

A 600 nm
PDX
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0 5 10 15 20 25 30 35 40 45 50
TIME (hr)

FIG. 7A

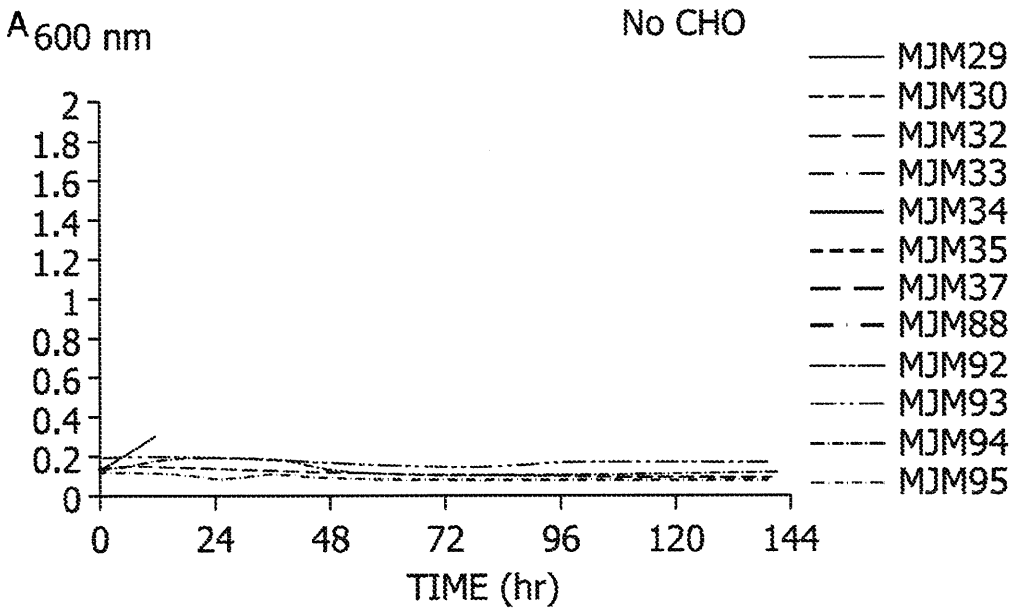

A600 nm
No CHO
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
0
24
48
72
96
120
144
TIME (hr)

FIG. 7B

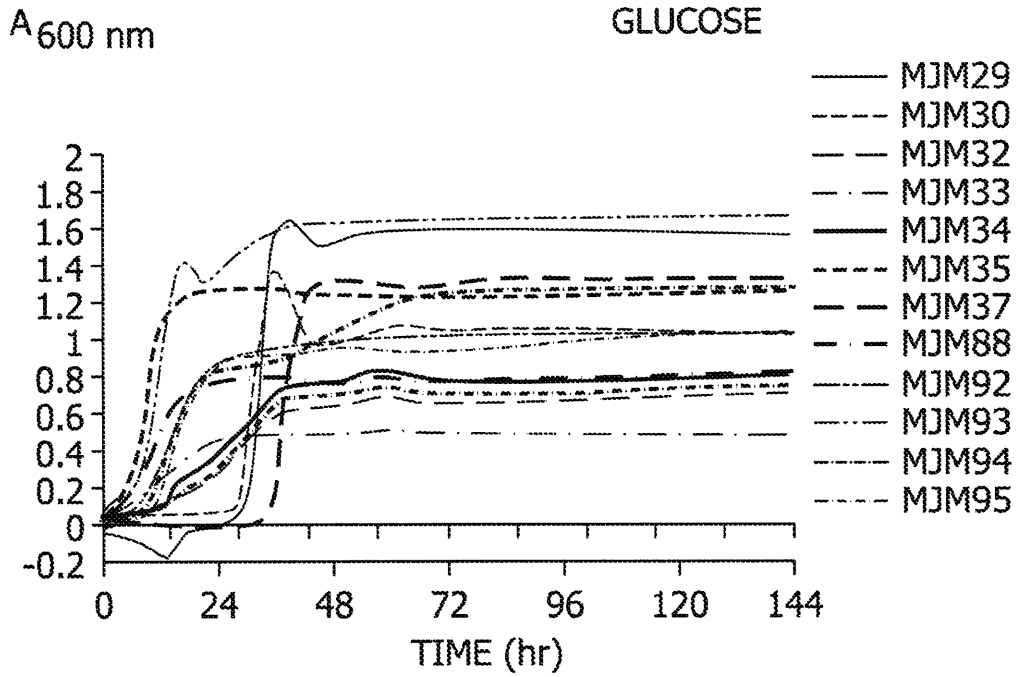

A600 nm
GLUCOSE
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
24
48
72
96
120
144
TIME (hr)

FIG. 7C

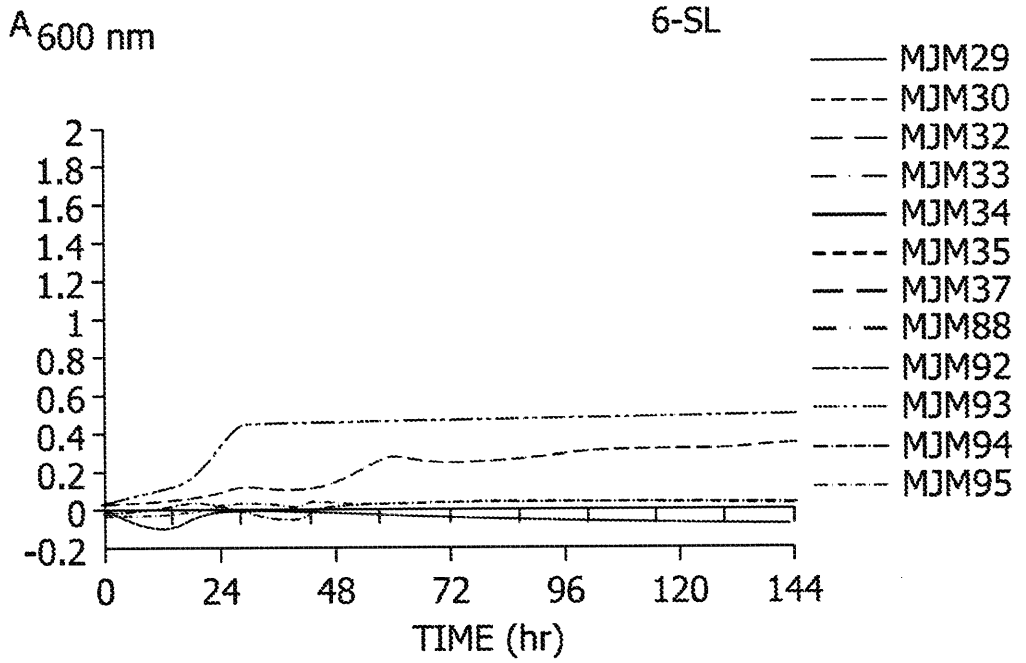

A600 nm
6-SL
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
24
48
72
96
120
144
TIME (hr)

FIG. 7D

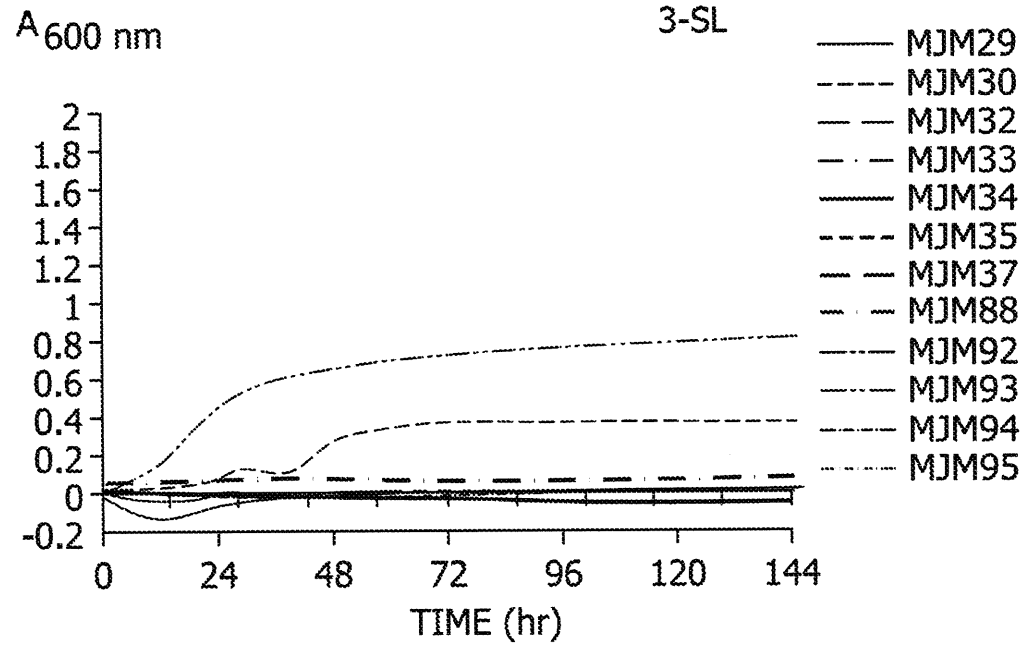

A600 nm
3-SL
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
24
48
72
96
120
144
TIME (hr)

FIG. 7E

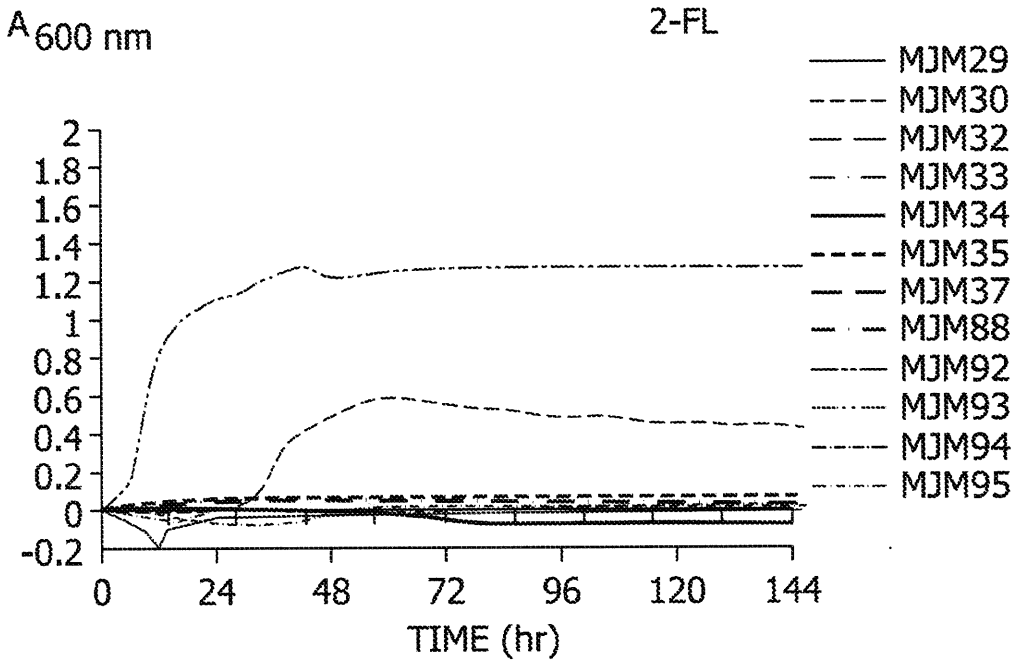

A600 nm
2-FL
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
24
48
72
96
120
144
TIME (hr)

FIG. 7F

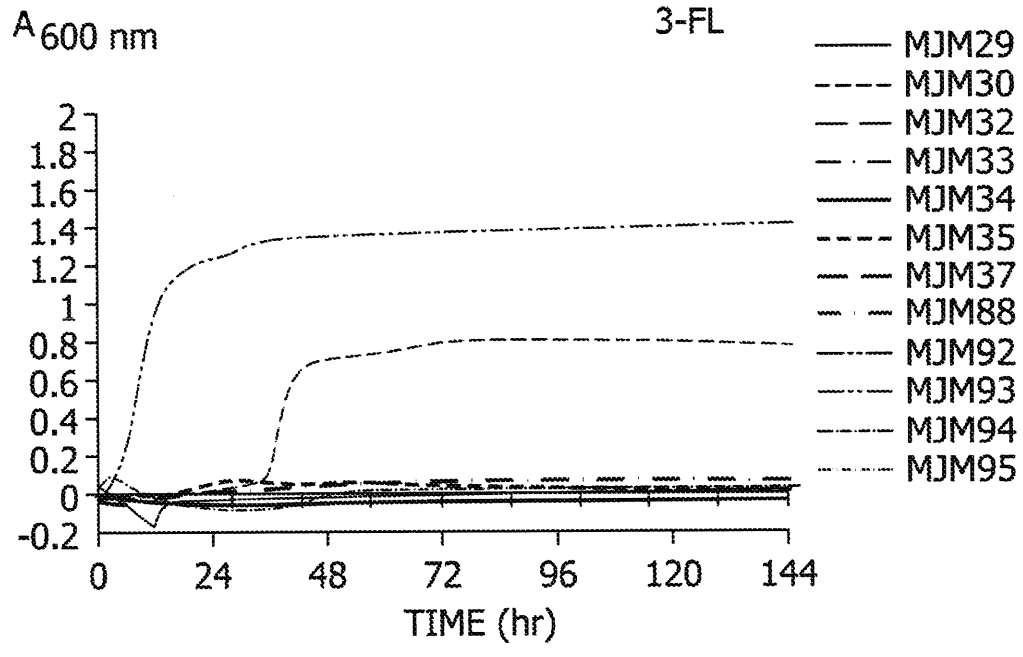

A600 nm
3-FL
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
24
48
72
96
120
144
TIME (hr)

FIG. 7G

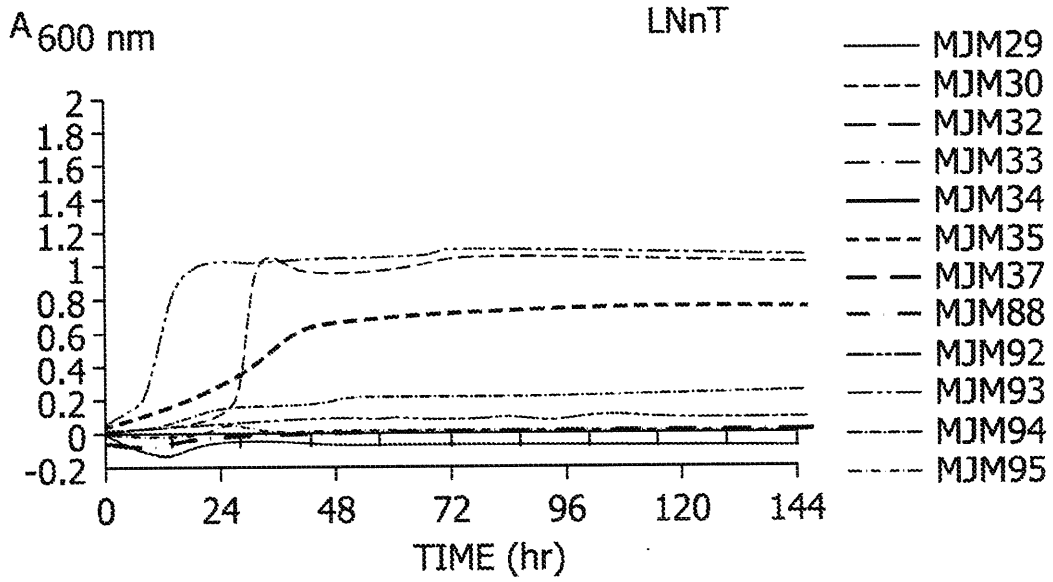

A 600 nm
LNnT
2
1.8
1.6
1.4
1.2
1
0.8
0.6
0.4
0.2
0
-0.2
0
24
48
72
96
120
144
TIME (hr)
MJM29
MJM30
MJM32
MJM33
MJM34
MJM35
MJM37
MJM88
MJM92
MJM93
MJM94
MJM95

FIG. 8

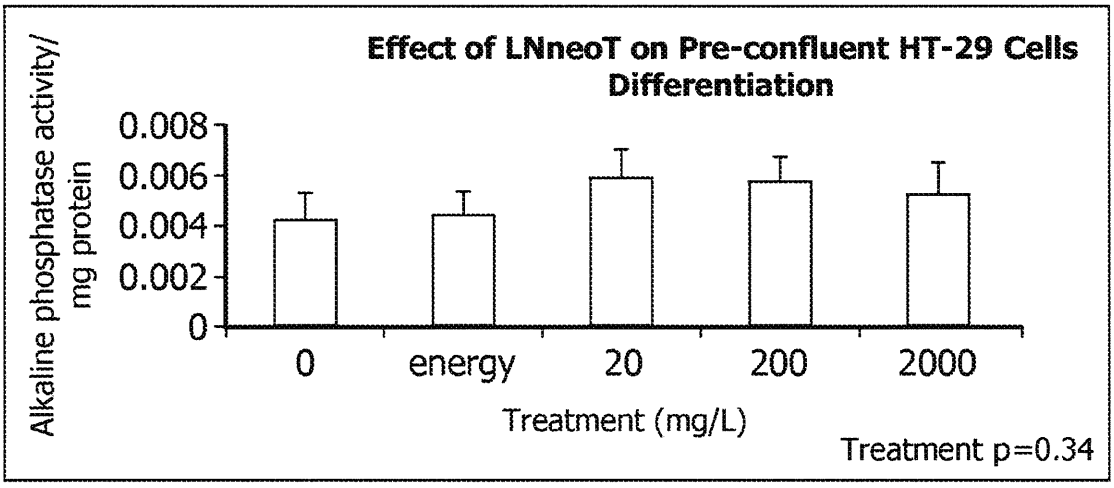


FIG. 9

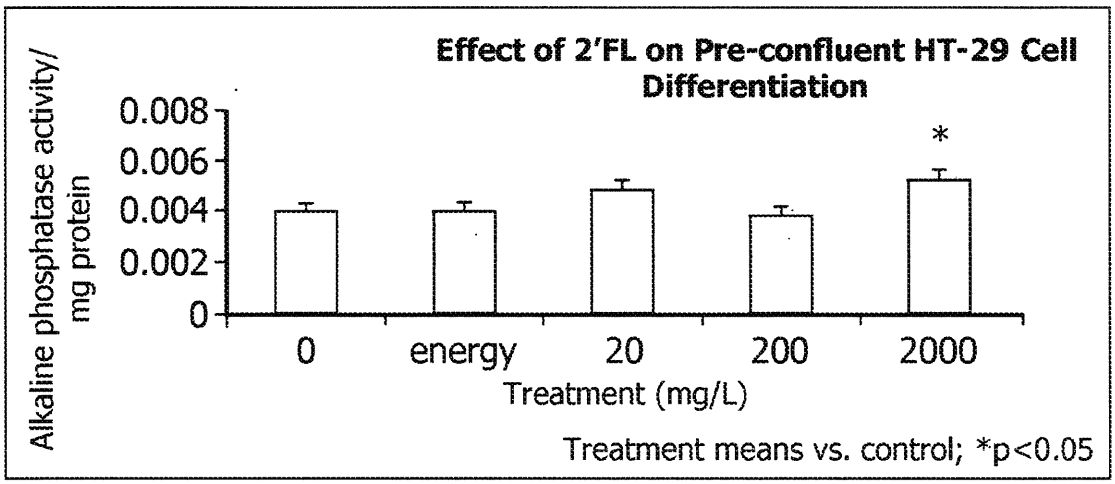


FIG. 10

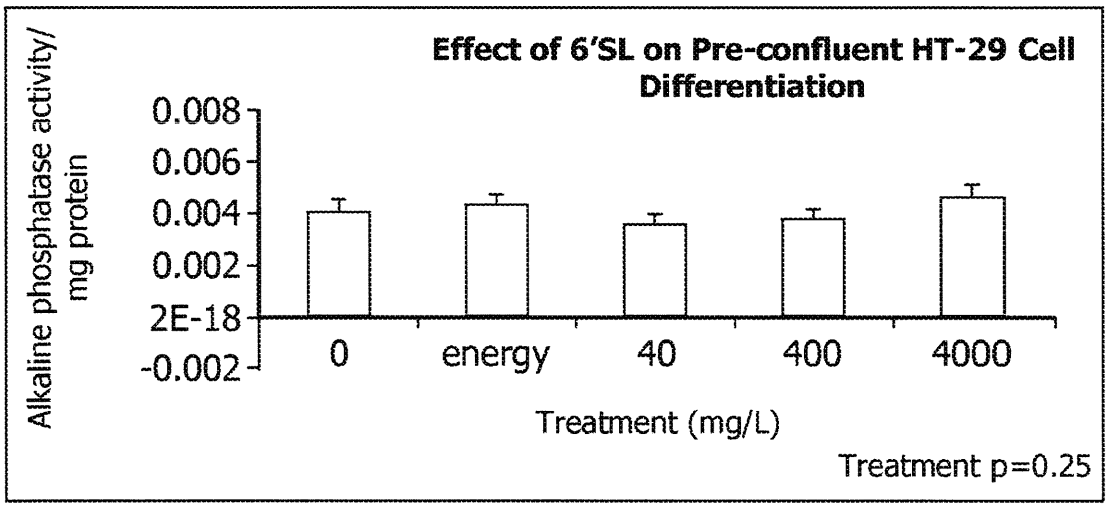


FIG. 11

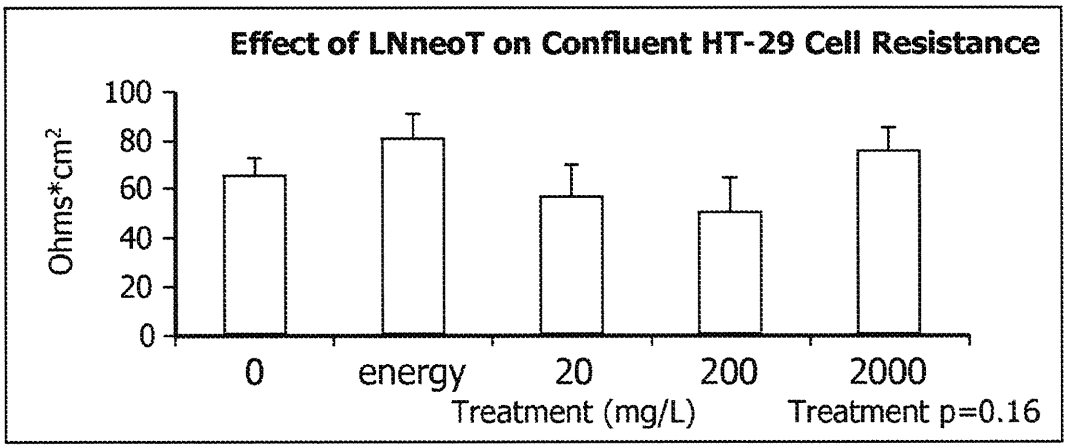


FIG. 12

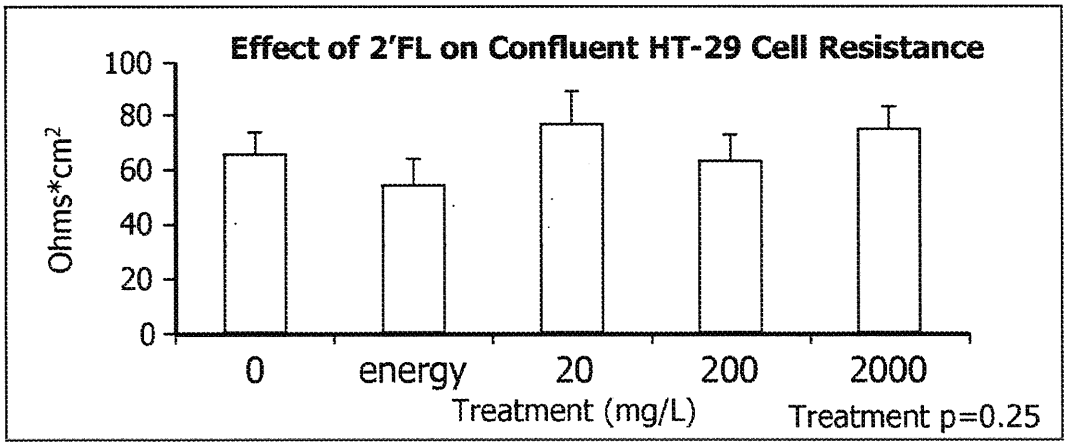


FIG. 13

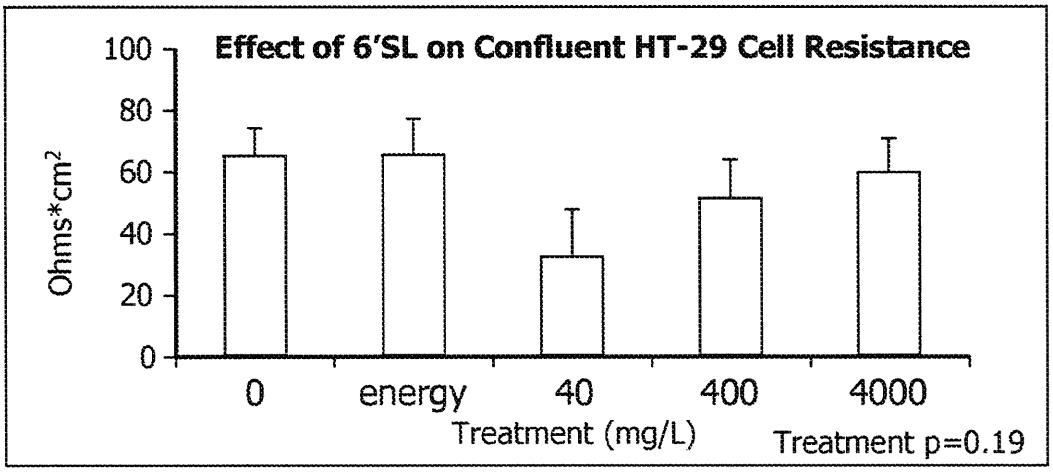


FIG. 14

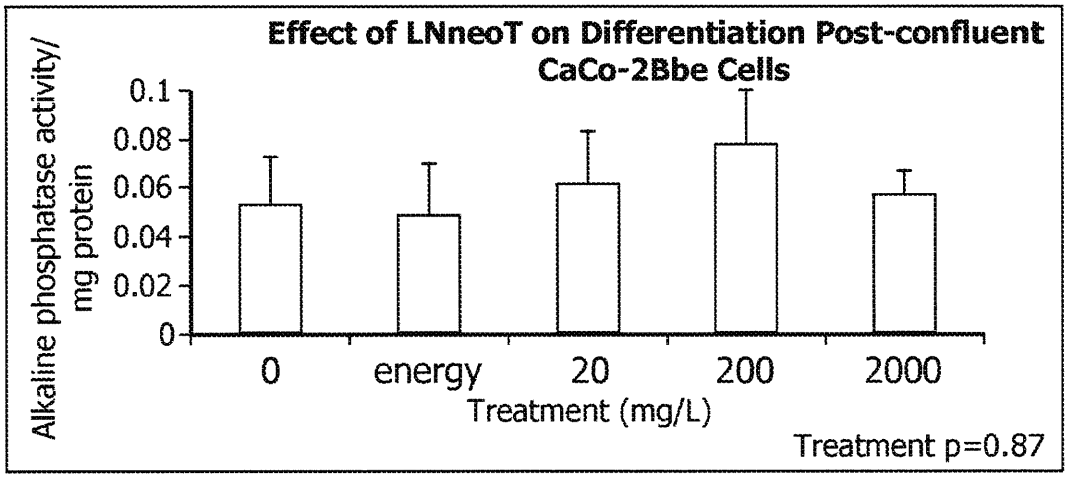


FIG. 15

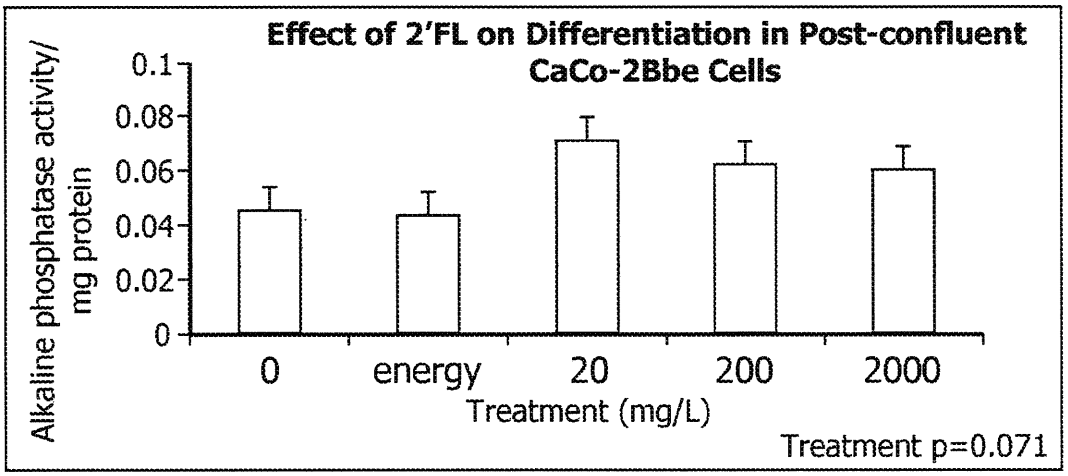


FIG. 16

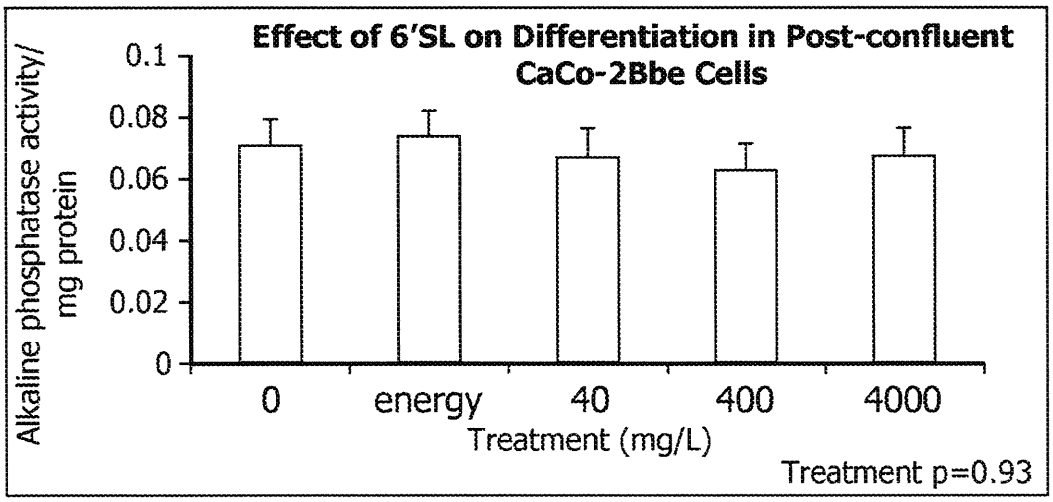


FIG. 17

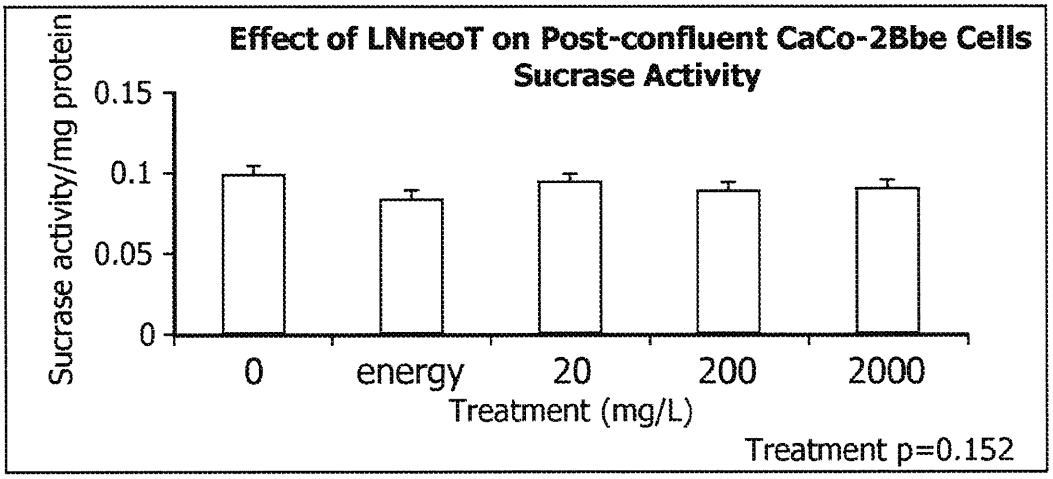


FIG. 18

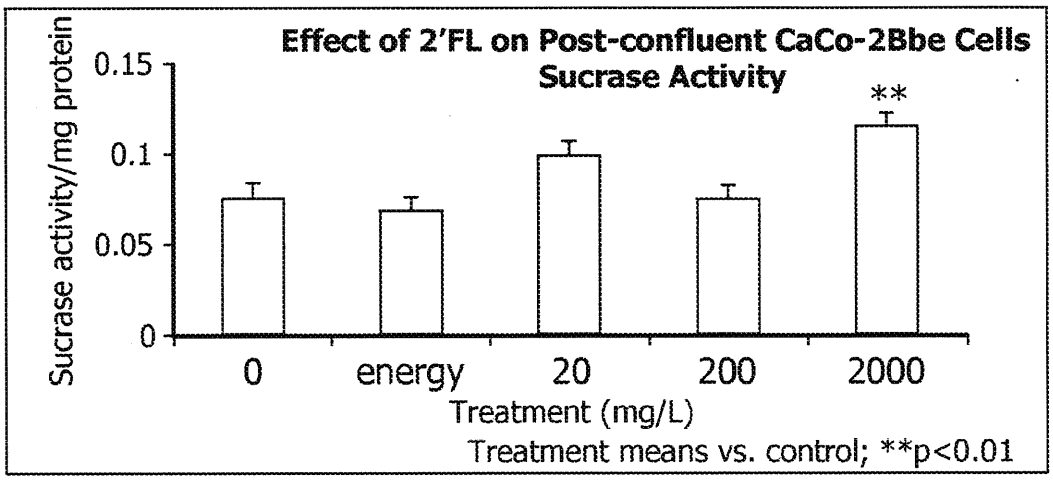


FIG. 19

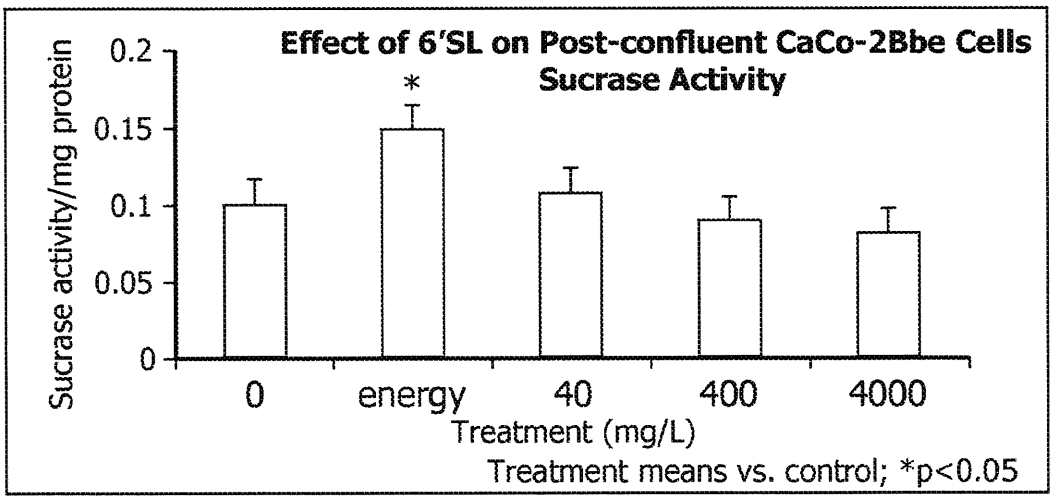


FIG. 20

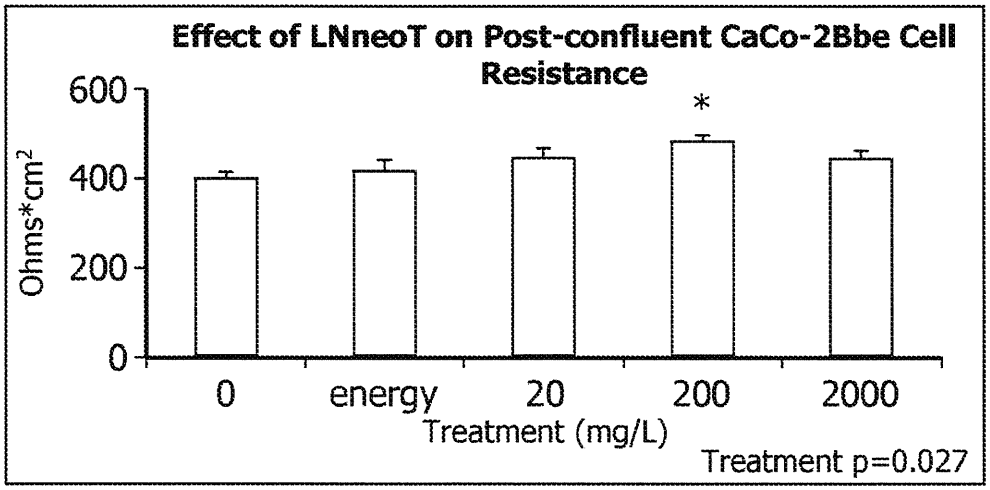


FIG. 21

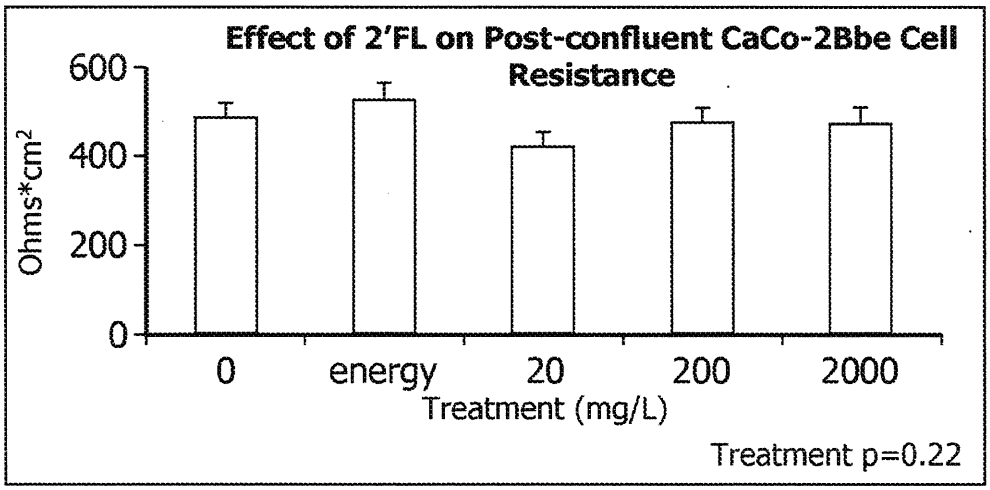


FIG. 22

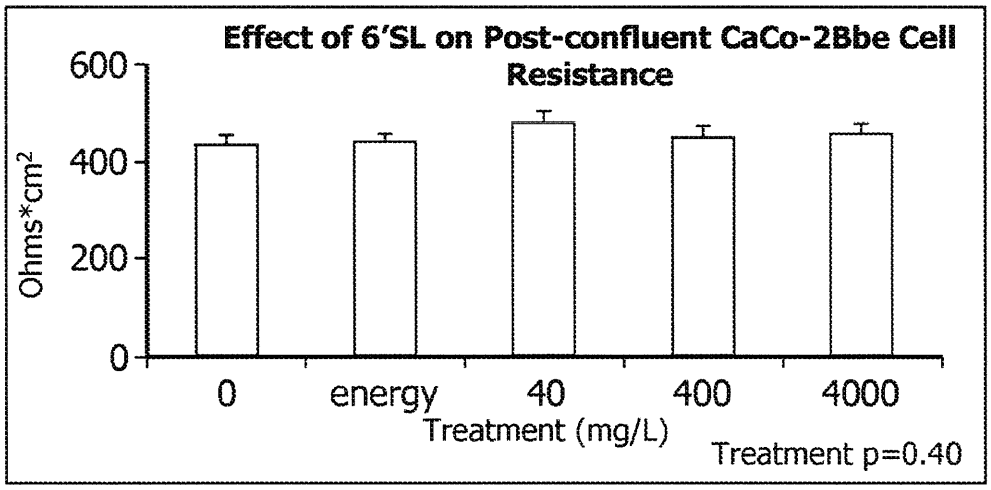


FIG. 23A

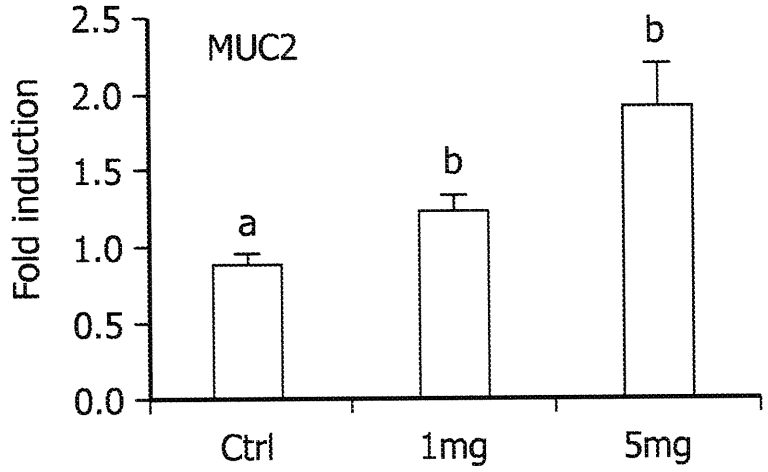


FIG. 23B

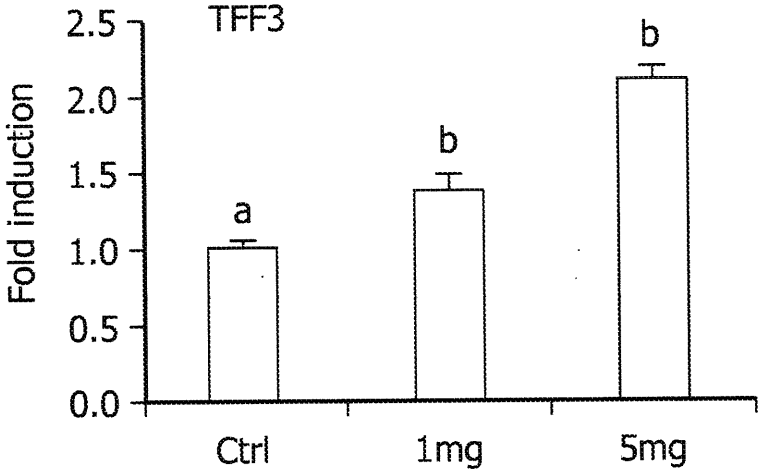


FIG. 23C

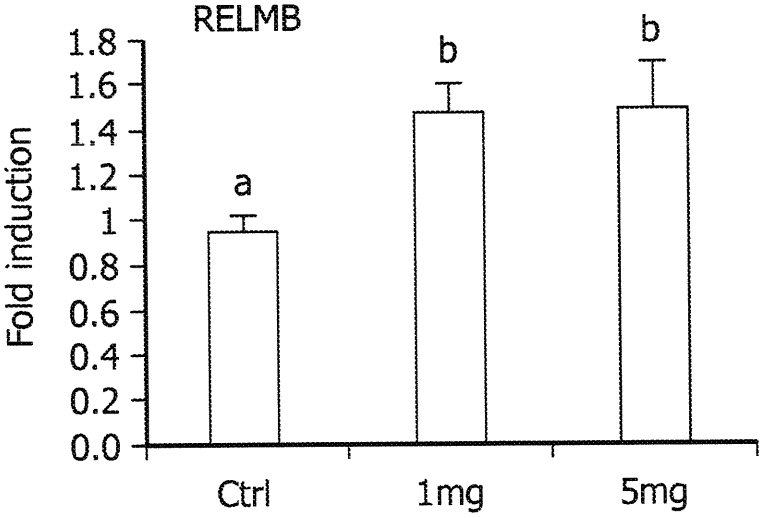


FIG. 23D

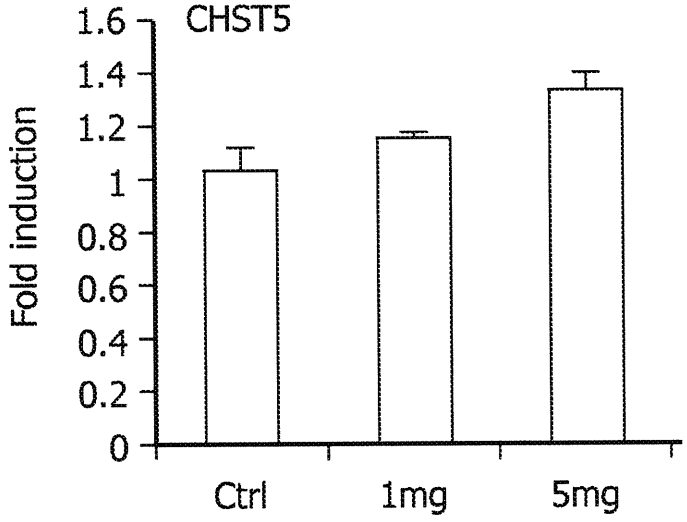


FIG. 23E

