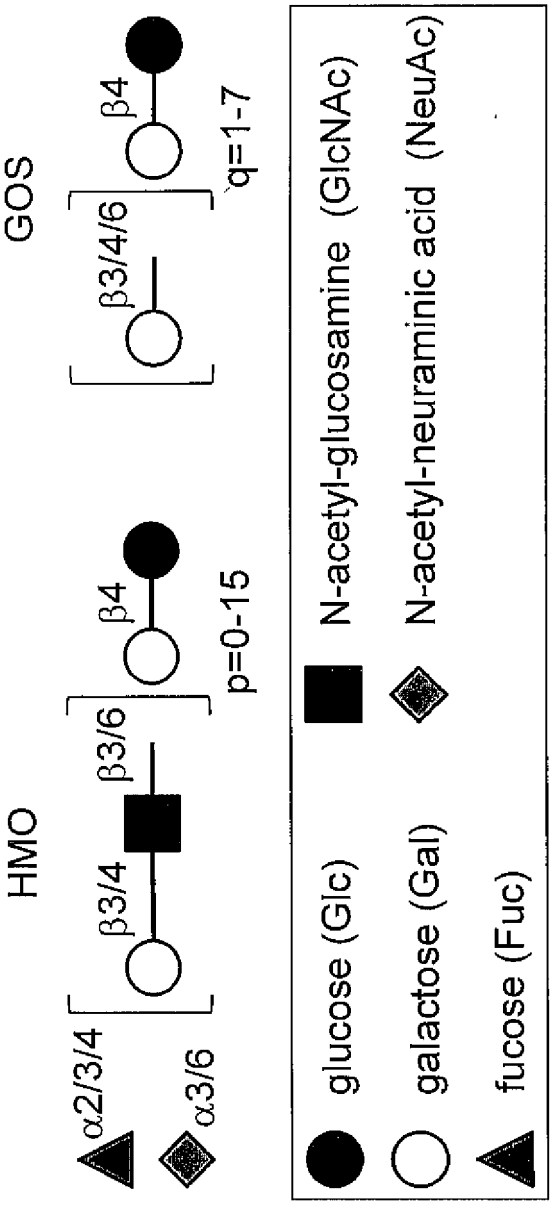

HMO
α2/3/4
α3/6
β3/4
β3/6
β4
p=0-15
GOS
β3/4/6
β4
q=1-7
glucose (Glc)
galactose (Gal)
fucose (Fuc)
N-acetyl-glucosamine (GlcNAc)
N-acetyl-neuraminic acid (NeuAc)

FIGURE 1

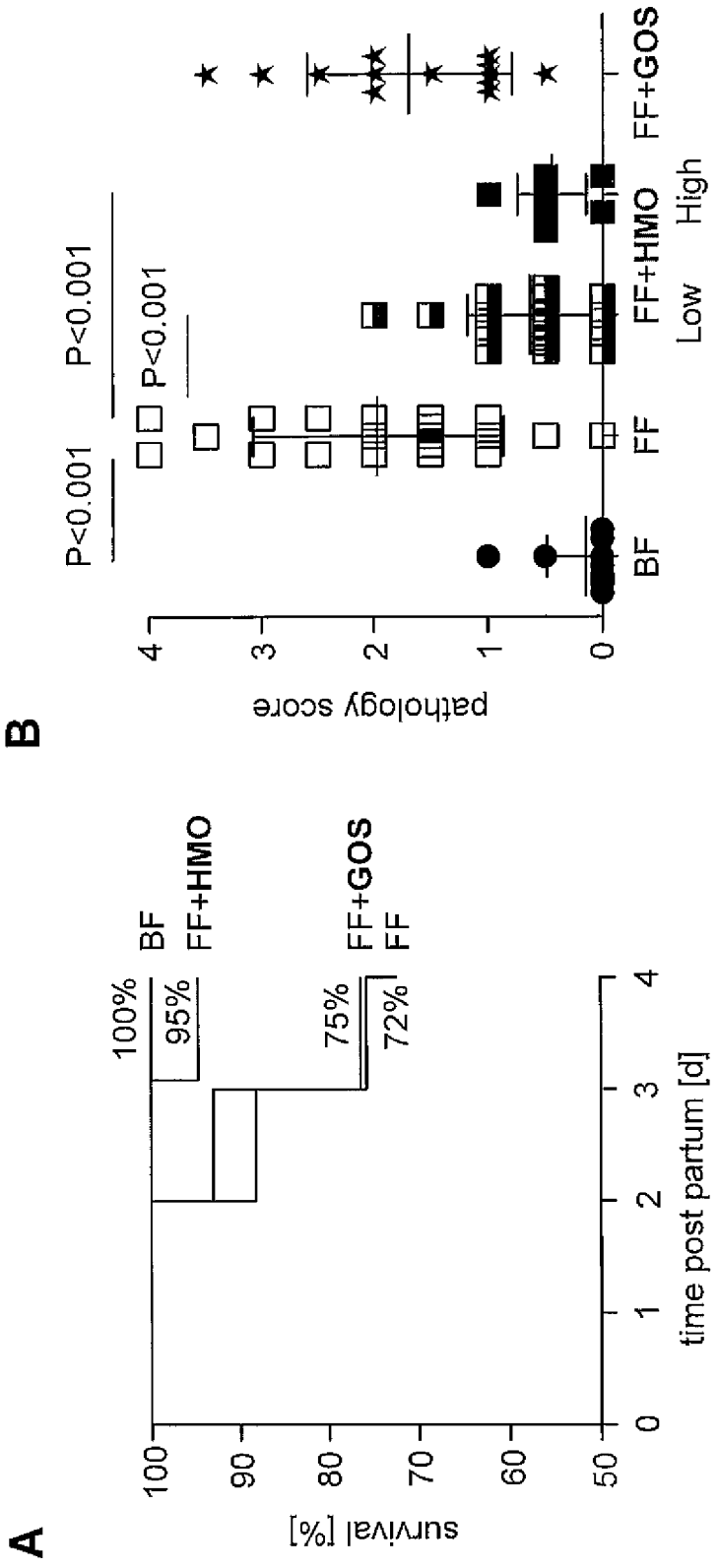

A
survival [%]
100
90
80
70
60
50
0
1
2
3
4
time post partum [d]
100%
95%
75%
72%
BF
FF+HMO
FF+GOS
FF
B
pathology score
4
3
2
1
0
P<0.001
P<0.001
P<0.001
BF
FF
FF+HMO
FF+GOS
Low
High

FIGURE 2

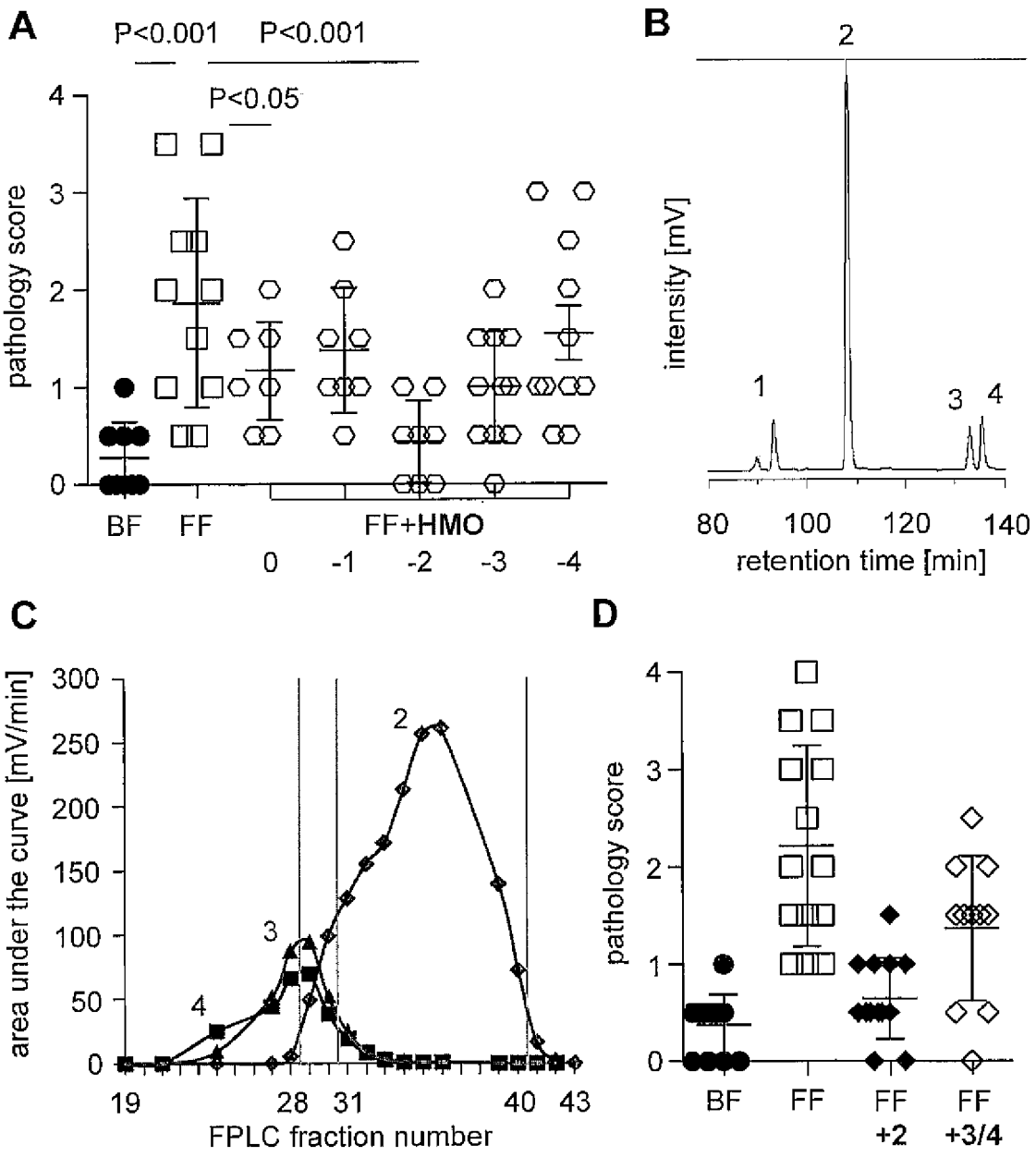

A
P<0.001
P<0.001
P<0.05
pathology score
BF
FF
FF+HMO
0
-1
-2
-3
-4
B
2
1
3
4
intensity [mV]
80
100
120
140
retention time [min]
C
area under the curve [mV/min]
FPLC fraction number
19
28
31
40
43
D
pathology score
BF
FF
FF +2
FF +3/4

FIGURE 3

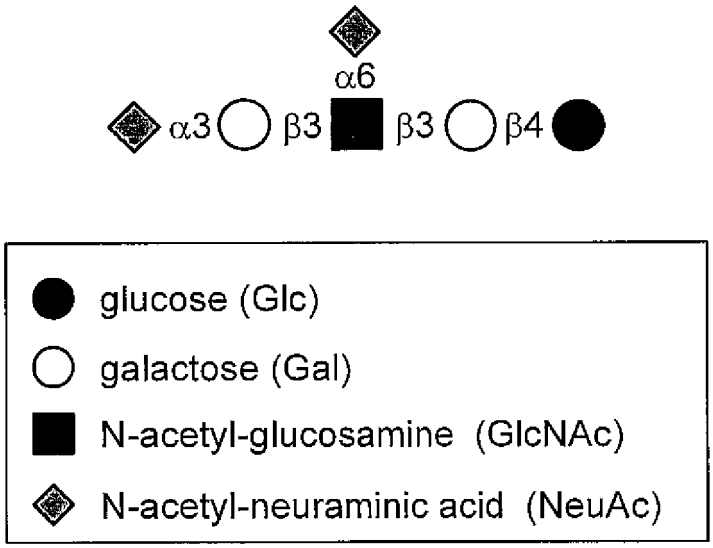

α6
α3
β3
β3
β4
glucose (Glc)
galactose (Gal)
N-acetyl-glucosamine (GlcNAc)
N-acetyl-neuraminic acid (NeuAc)

FIGURE 4

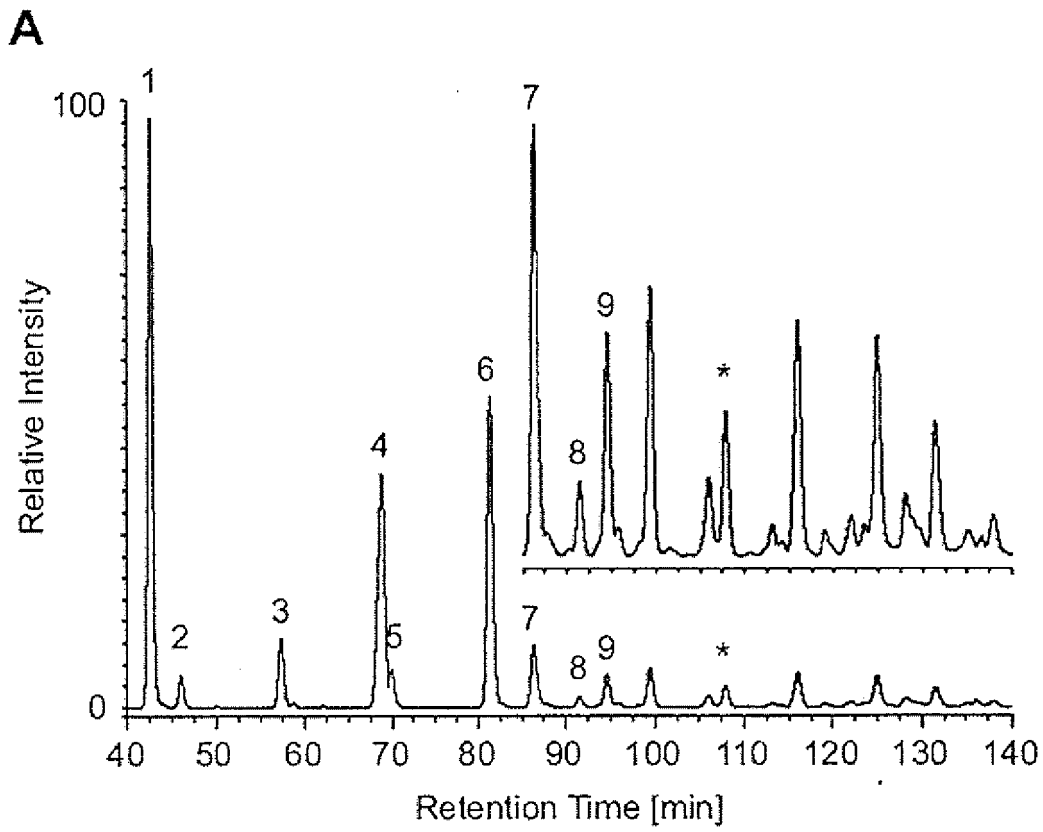

A
100
0
Relative Intensity
1
2
3
4
5
6
7
8
9
*
40
50
60
70
80
90
100
110
120
130
140
Retention Time [min]

FIGURE 5-1

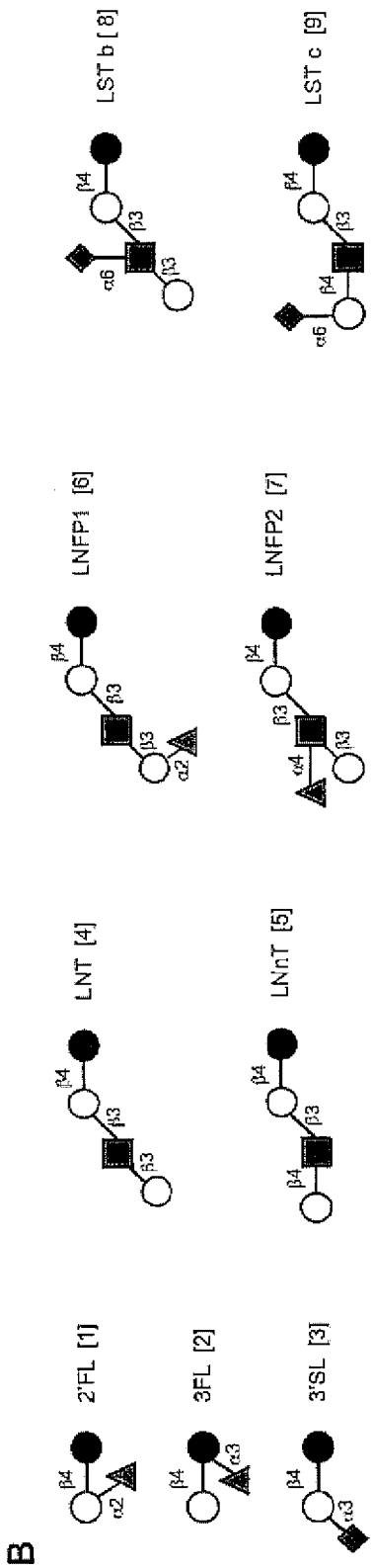


FIGURE 5-2

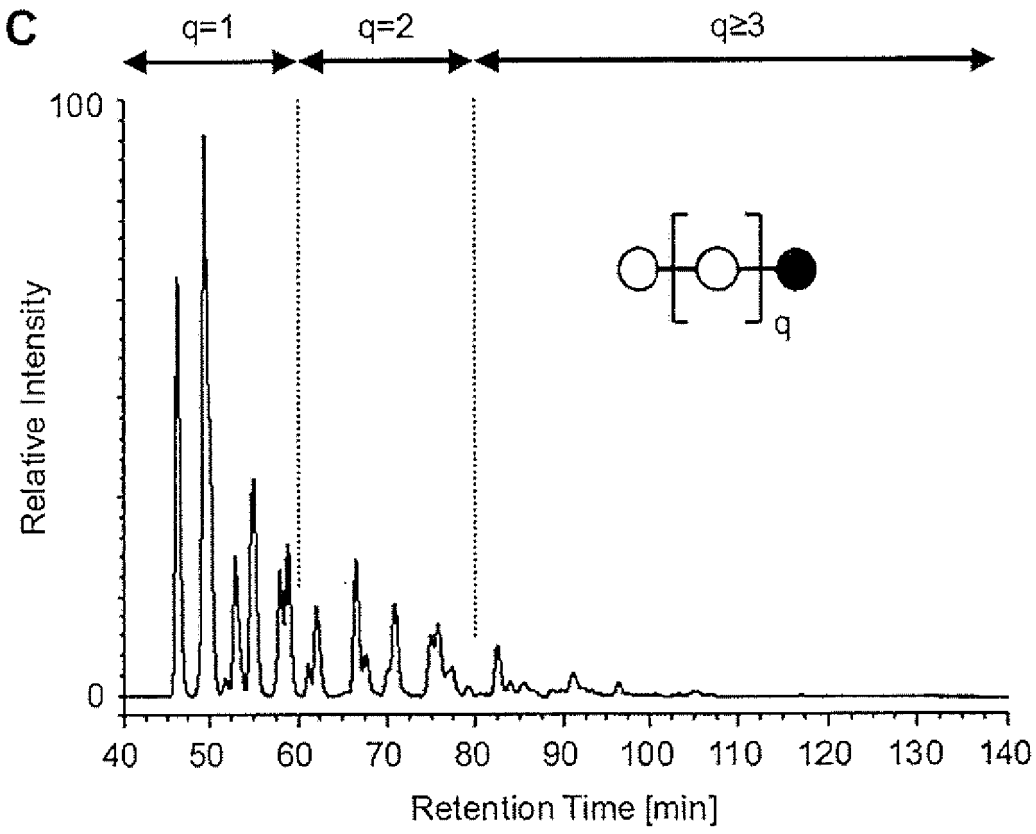

C
q=1
q=2
q≥3
100
0
Relative Intensity
q
40
50
60
70
80
90
100
110
120
130
140
Retention Time [min]

FIGURE 5-3

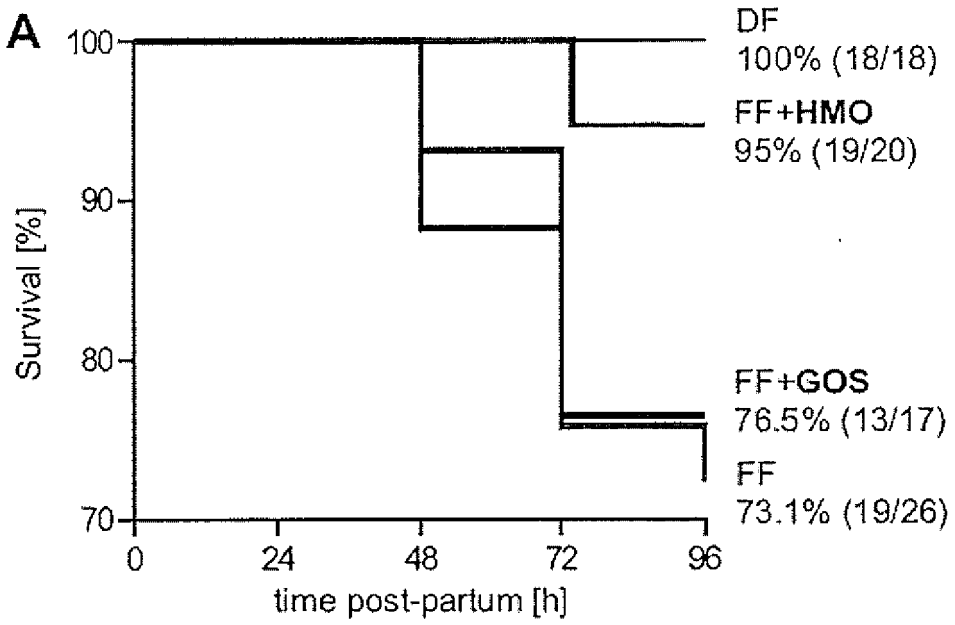

A
100
90
80
70
Survival [%]
0
24
48
72
96
time post-partum [h]
DF
100% (18/18)
FF+HMO
95% (19/20)
FF+GOS
76.5% (13/17)
FF
73.1% (19/26)

FIGURE 6-1

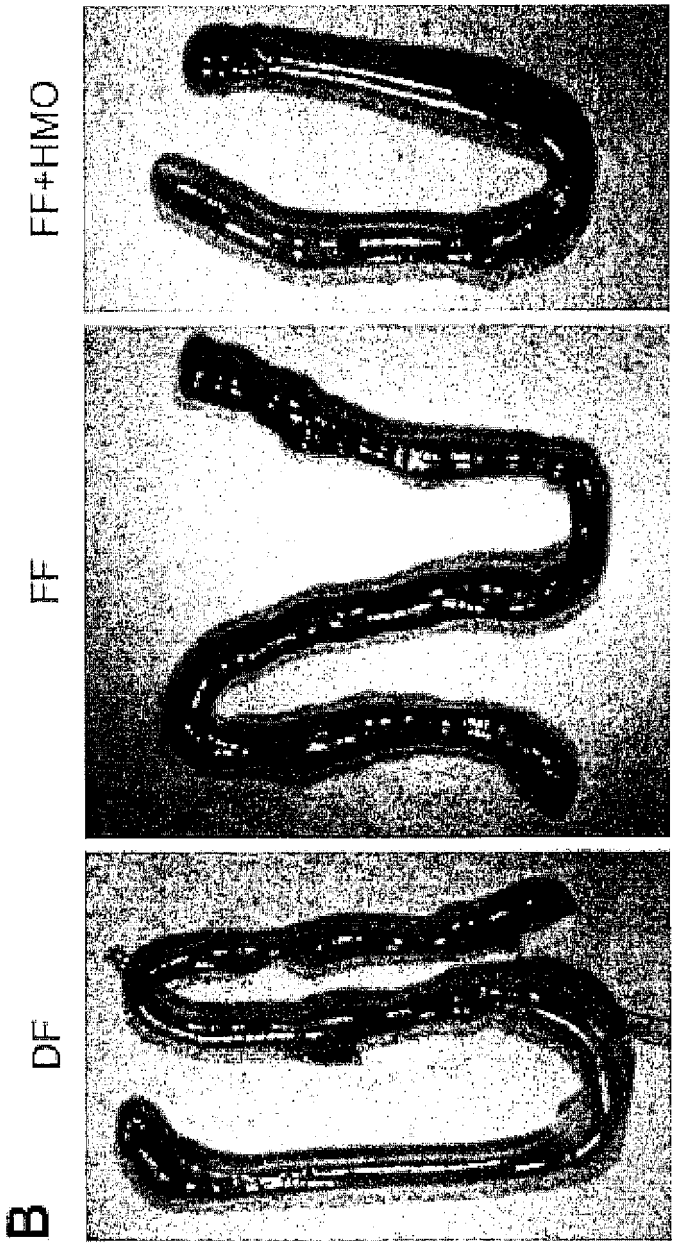


FIGURE 6-2

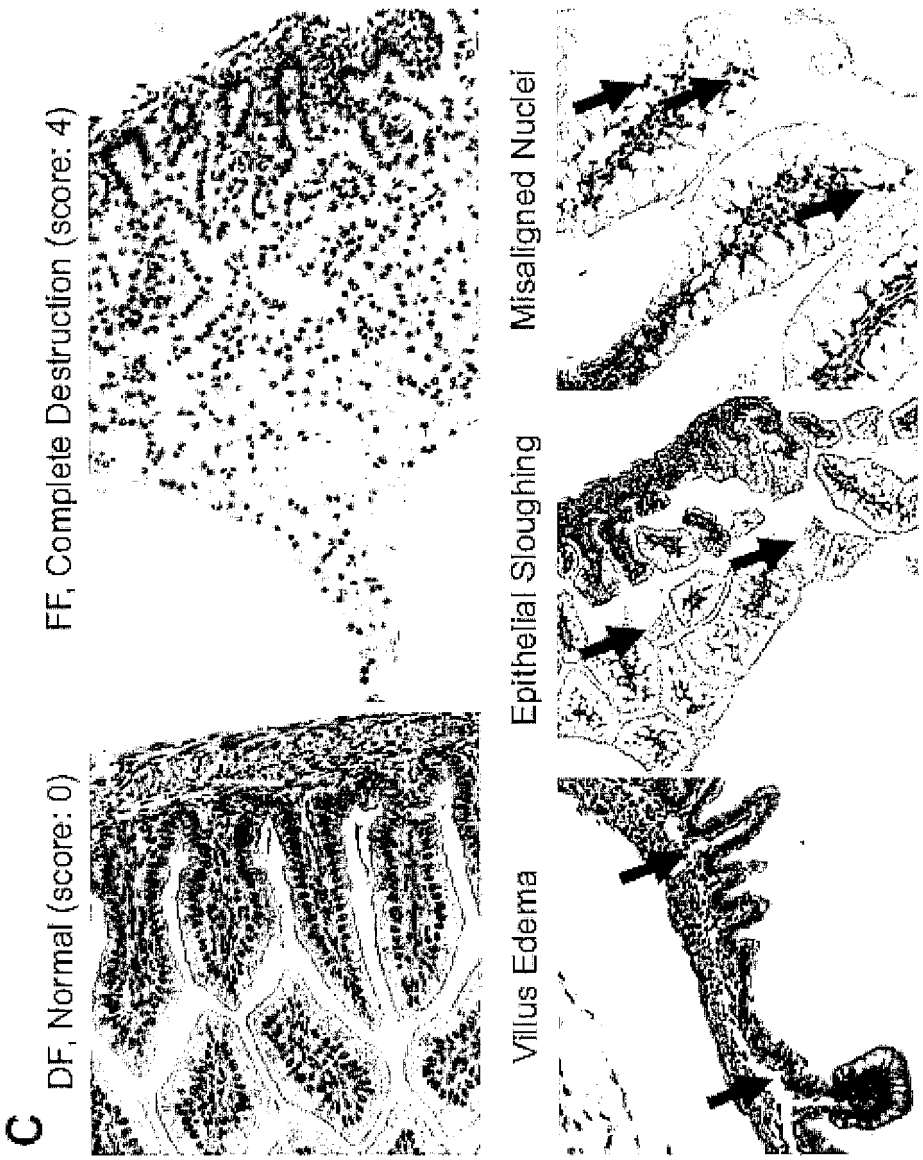

C
DF, Normal (score: 0)
FF, Complete Destruction (score: 4)
Villus Edema
Epithelial Sloughing
Misaligned Nuclei

FIGURE 6-3

D

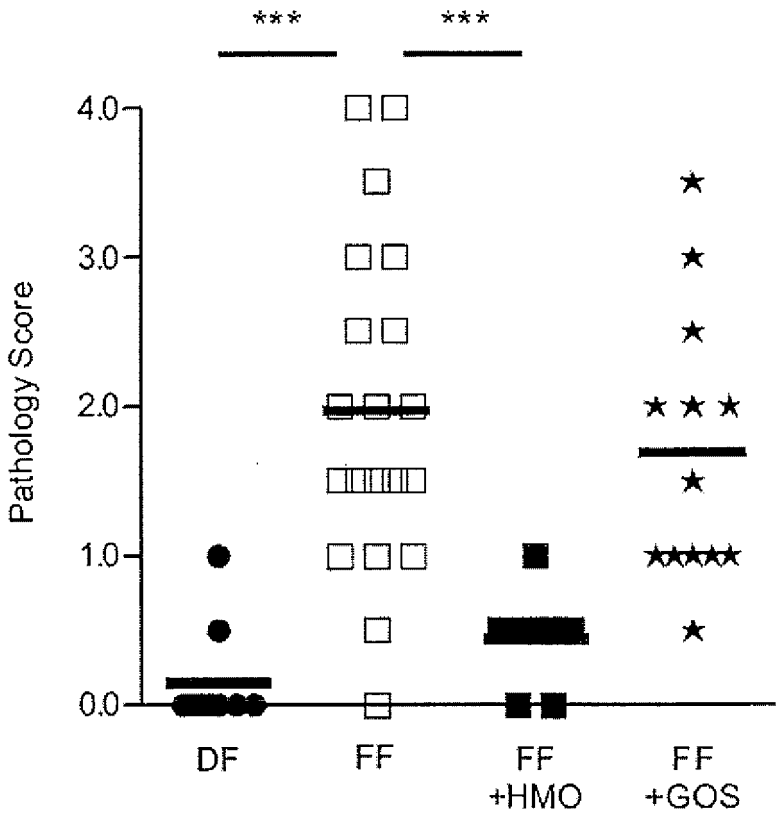


FIGURE 6-4

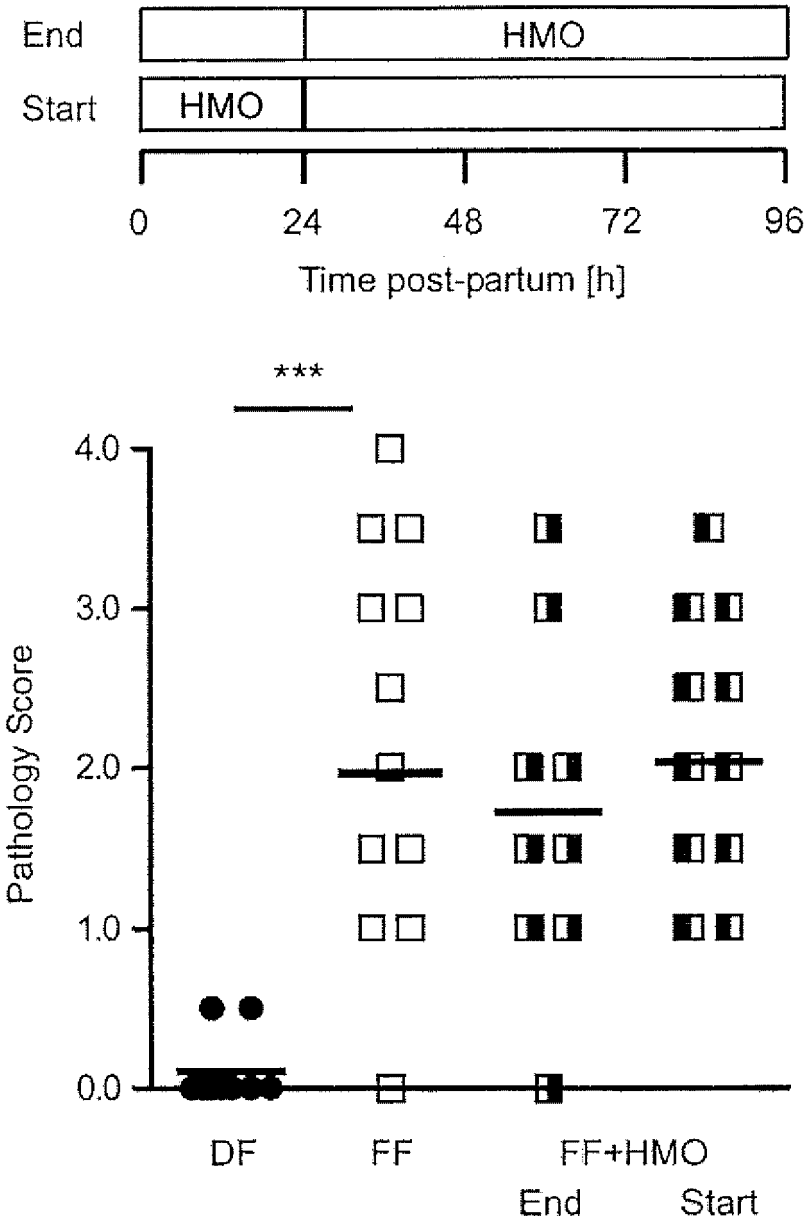

End
HMO
Start
HMO
0
24
48
72
96
Time post-partum [h]
***
4.0
3.0
2.0
1.0
0.0
Pathology Score
DF
FF
FF+HMO
End
Start

FIGURE 7

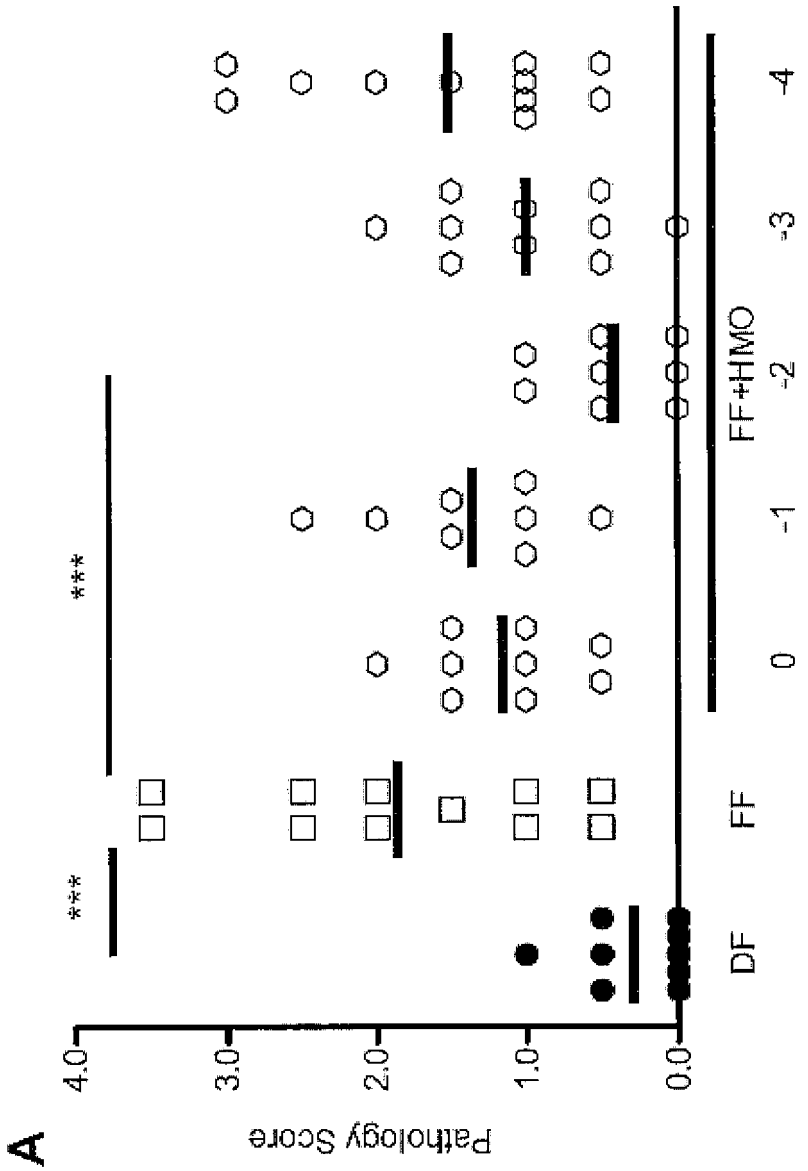


FIGURE 8-1

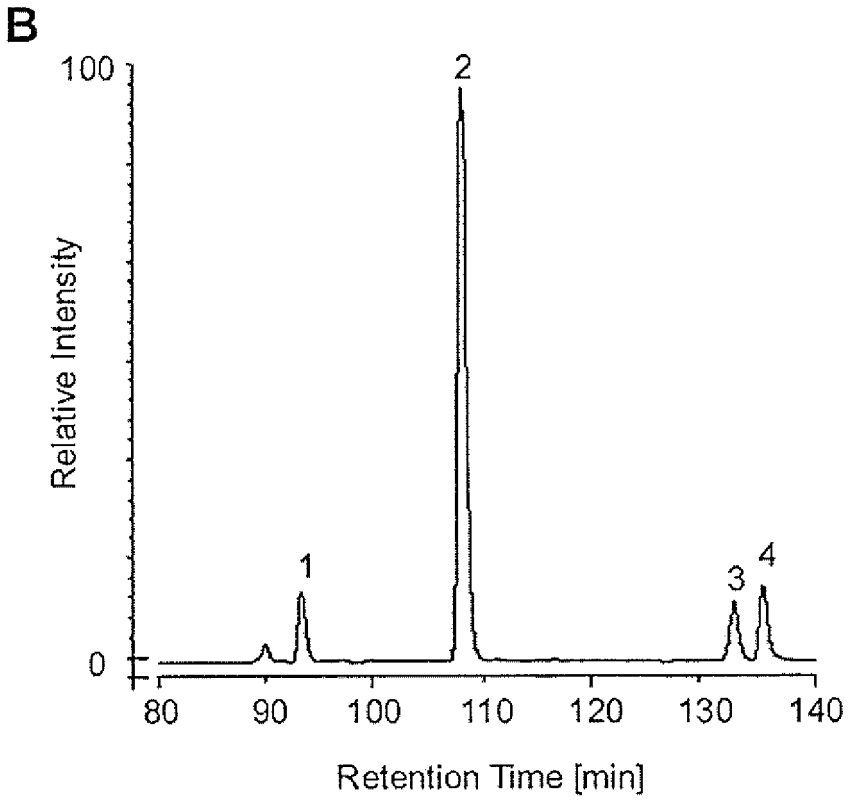

B
100
0
Relative Intensity
1
2
3
4
80
90
100
110
120
130
140
Retention Time [min]

FIGURE 8-2

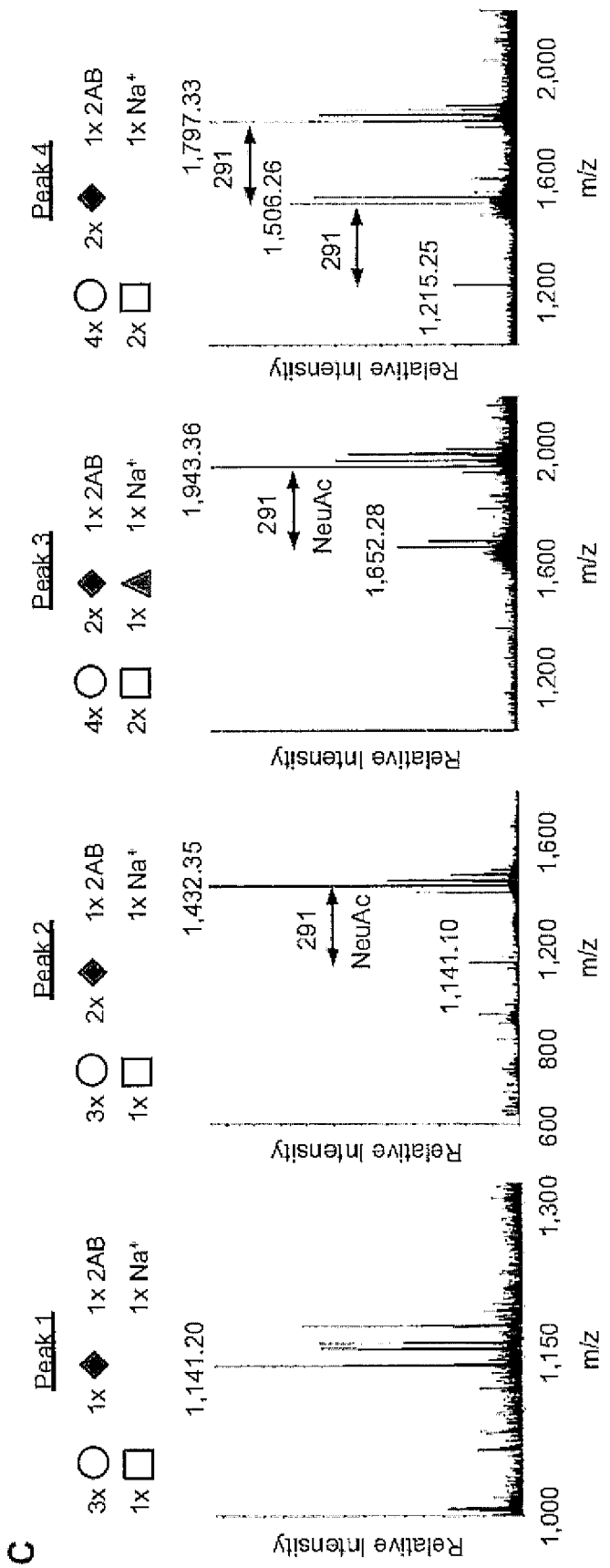

C
Peak 1
3x ○ 1x □ 1x ◆ 1x 2AB 1x Na+
1,141.20
Relative Intensity
1,000 1,150 1,300 m/z
Peak 2
3x ○ 1x □ 2x ◆ 1x 2AB 1x Na+
1,432.35
291
NeuAc
1,141.10
Relative Intensity
600 800 1,200 1,600 m/z
Peak 3
4x ○ 2x □ 2x ◆ 1x ▲ 1x 2AB 1x Na+
1,943.36
291
NeuAc
1,652.28
Relative Intensity
1,200 1,600 2,000 m/z
Peak 4
4x ○ 2x □ 2x ◆ 1x 2AB 1x Na+
1,797.33
291
1,506.26
291
1,215.25
Relative Intensity
1,200 1,600 2,000 m/z

FIGURE 8-3

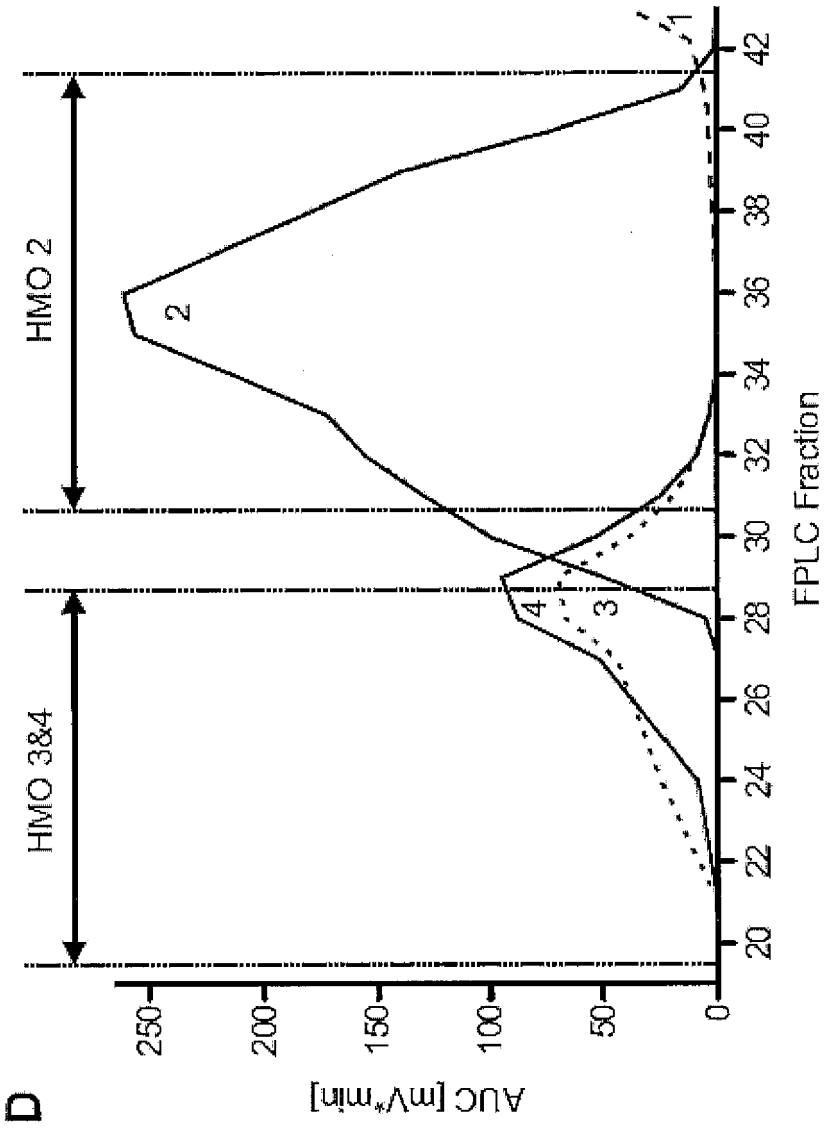

D
AUC [mV*min]
250
200
150
100
50
0
HMO 3&4
HMO 2
1
2
3
4
20
22
24
26
28
30
32
34
36
38
40
42
FPLC Fraction

FIGURE 8-4

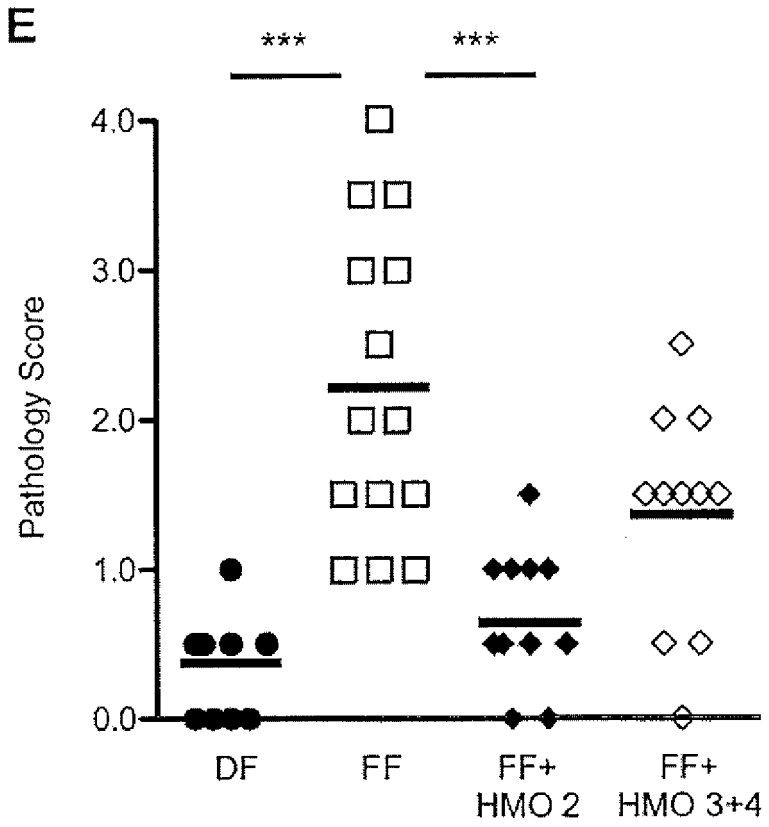


FIGURE 8-5

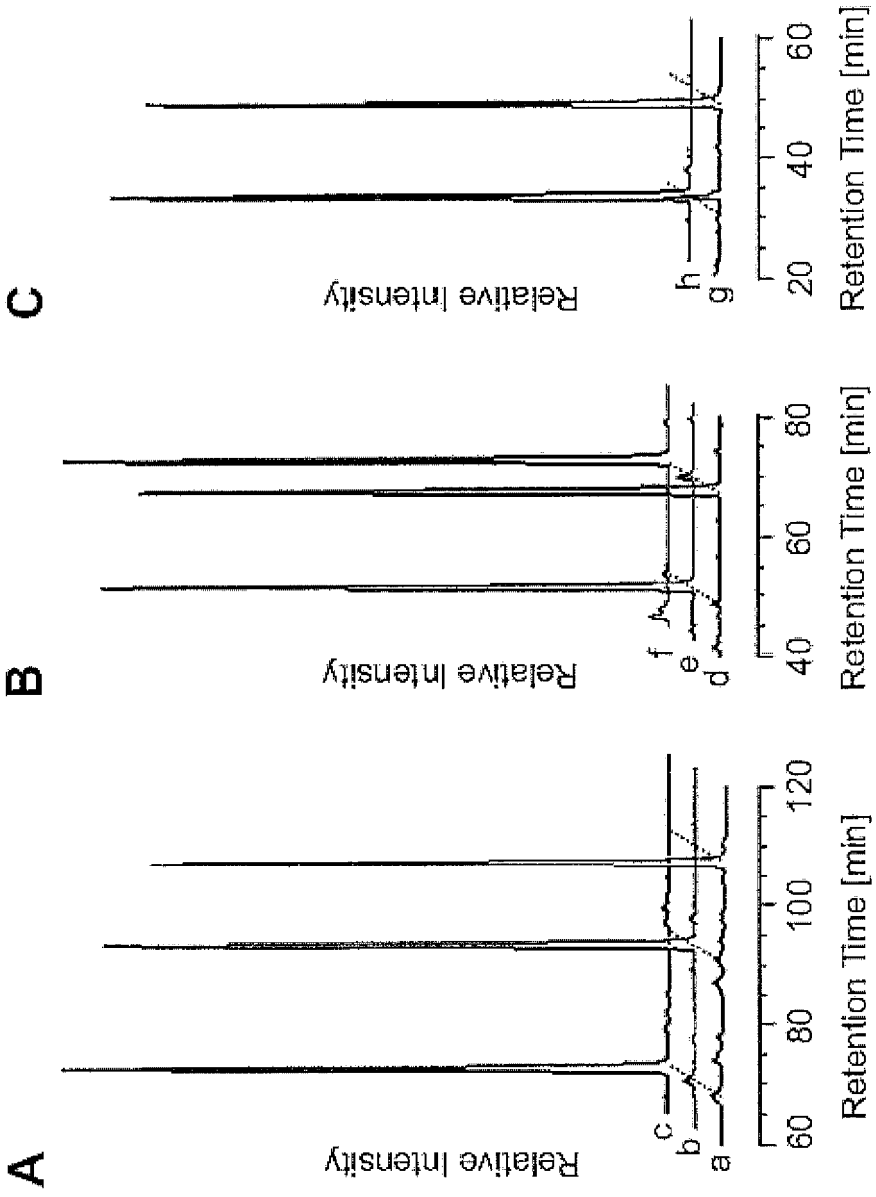

A
B
C
Relative Intensity
Retention Time [min]
a
b
c
d
e
f
g
h
60
80
100
120
40
20

FIGURE 9-1

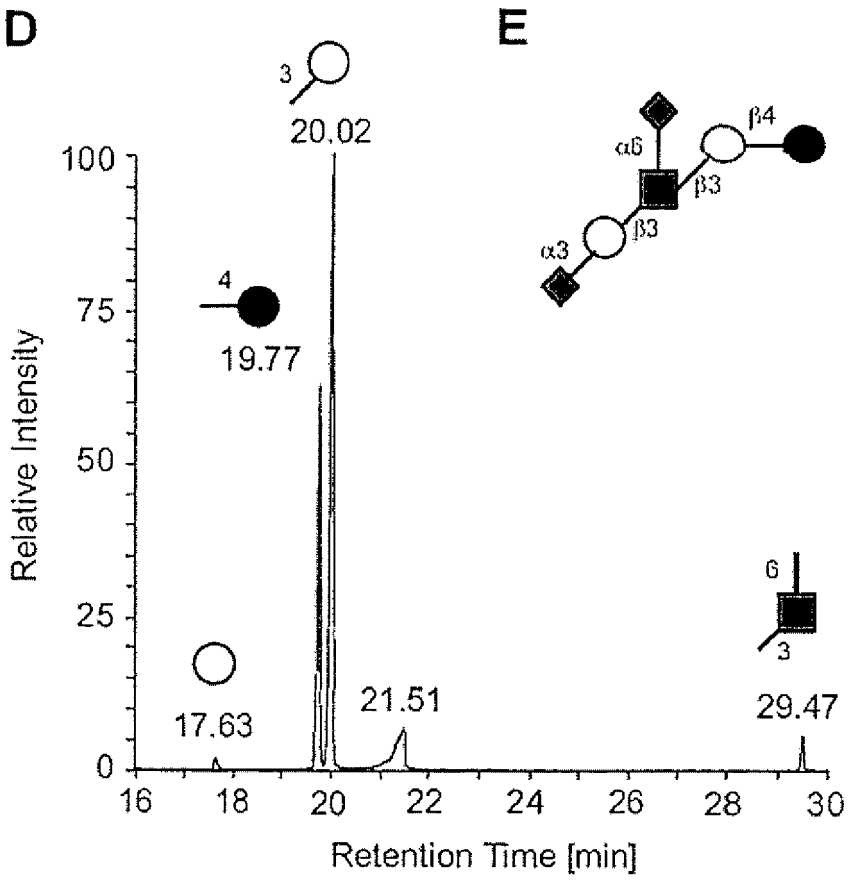

D
E
3
20.02
4
19.77
17.63
21.51
6
3
29.47
α6
β4
β3
β3
α3
100
75
50
25
0
Relative Intensity
16
18
20
22
24
26
28
30
Retention Time [min]

FIGURE 9-2

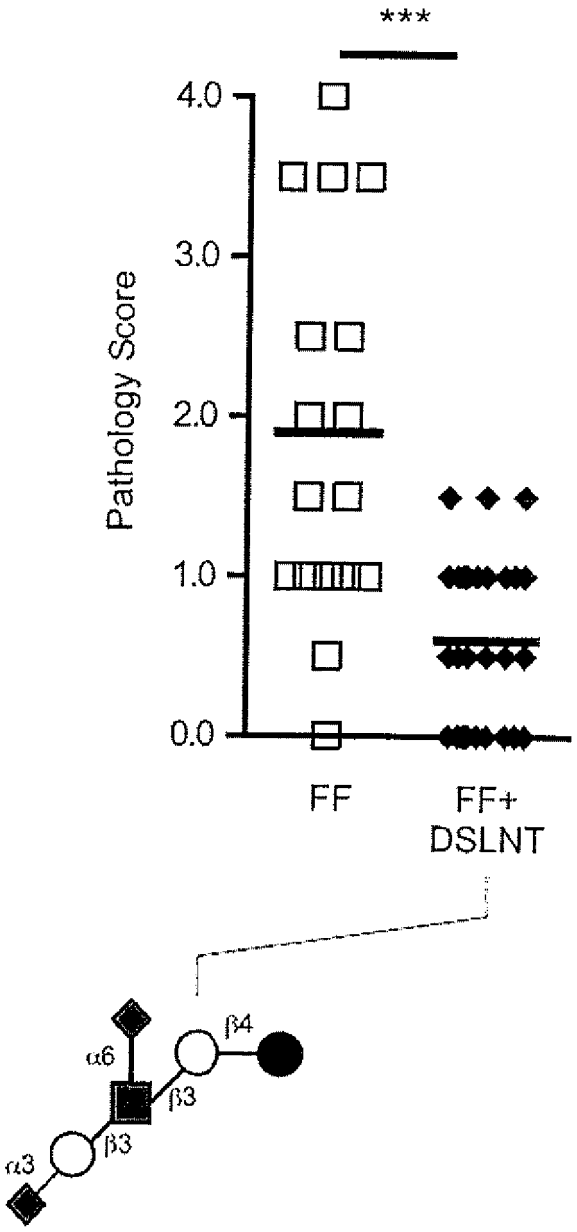


FIGURE 10