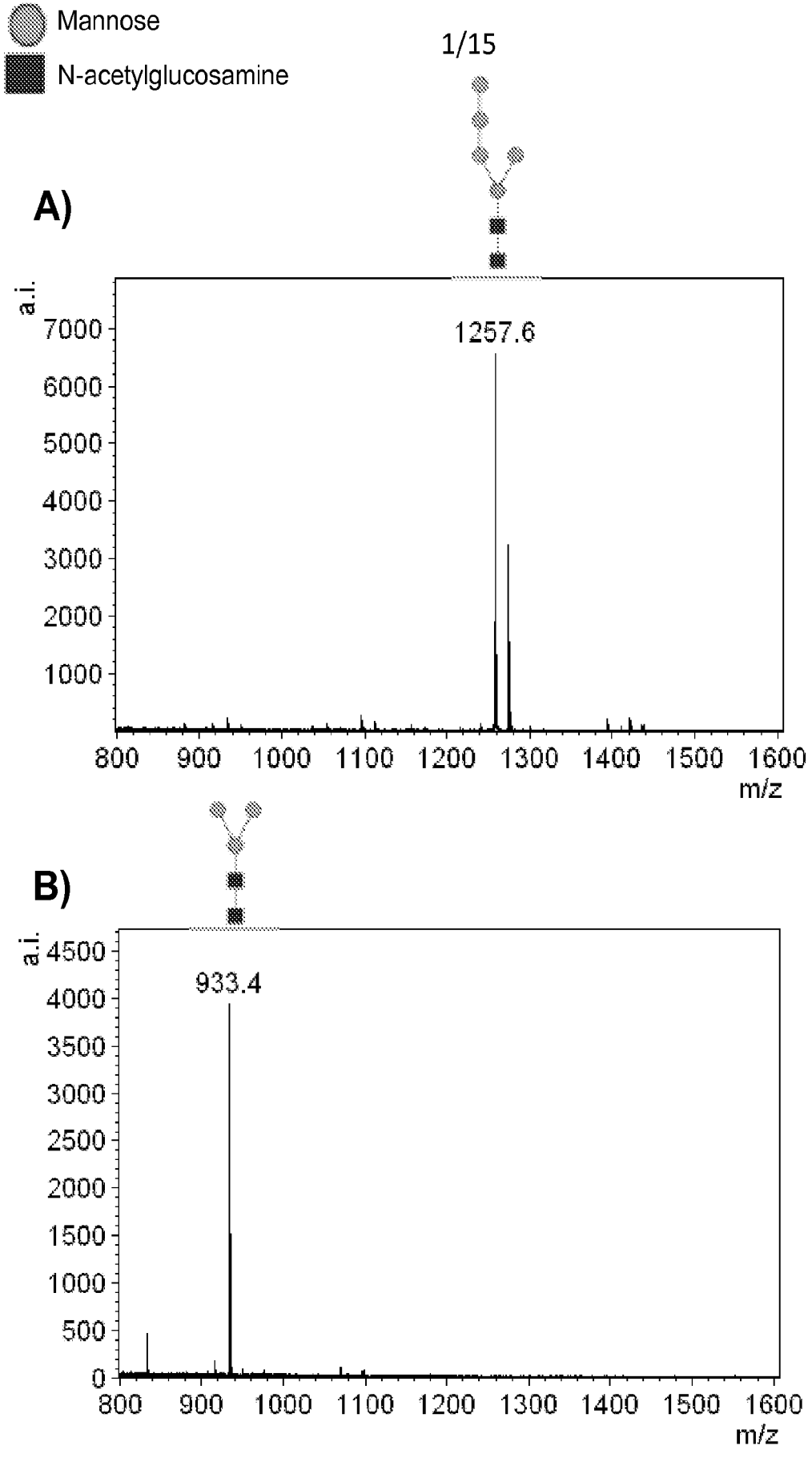

Mannose
N-acetylglucosamine
1/15
A)
a.i.
7000
6000
5000
4000
3000
2000
1000
1257.6
800
900
1000
1100
1200
1300
1400
1500
1600
m/z
B)
a.i.
4500
4000
3500
3000
2500
2000
1500
1000
500
0
933.4
800
900
1000
1100
1200
1300
1400
1500
1600
m/z

FIG. 1

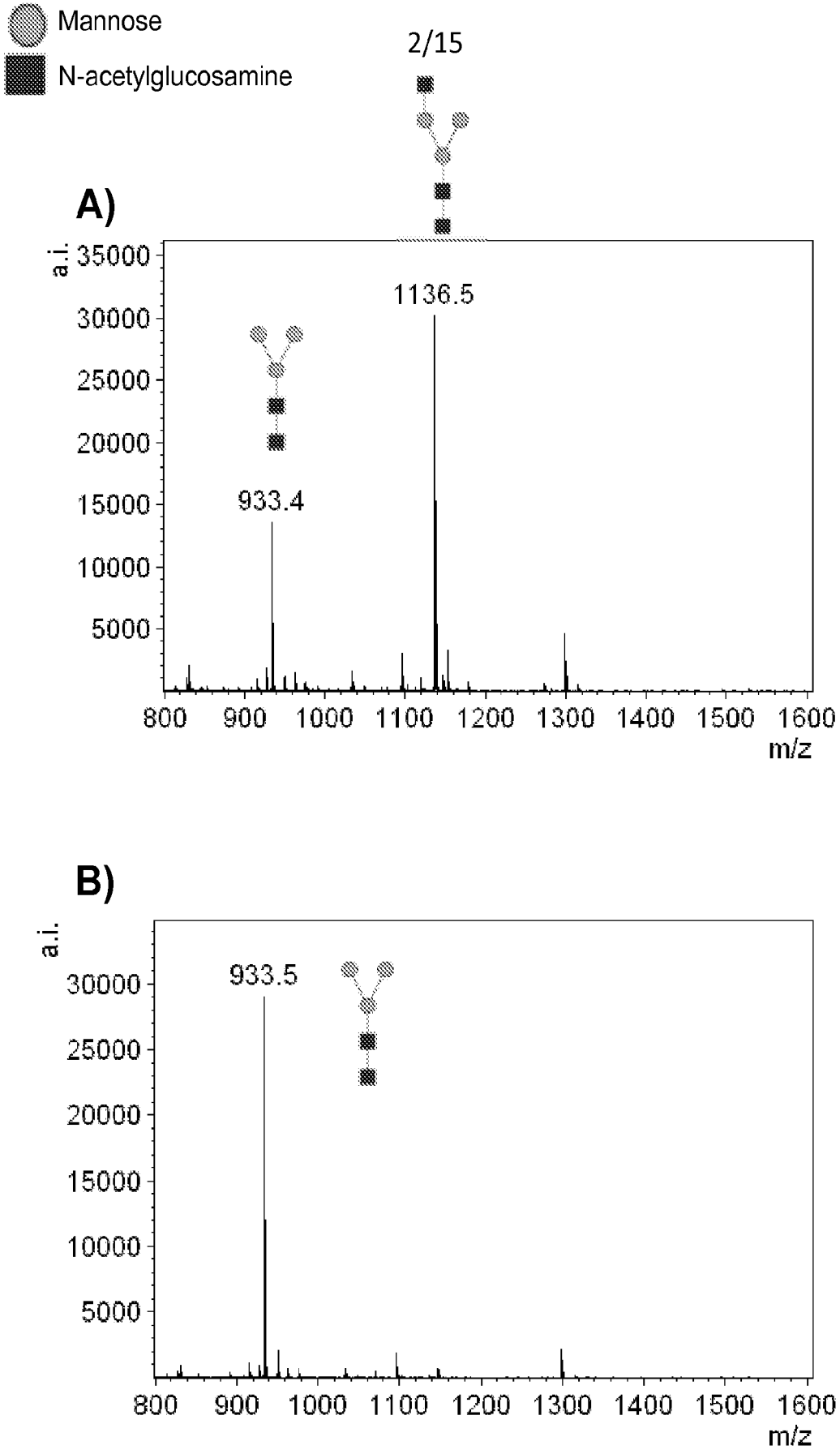

Mannose
N-acetylglucosamine
2/15
A)
a.i.
35000
30000
25000
20000
15000
10000
5000
1136.5
933.4
800
900
1000
1100
1200
1300
1400
1500
1600
m/z
B)
a.i.
933.5
30000
25000
20000
15000
10000
5000
800
900
1000
1100
1200
1300
1400
1500
1600
m/z

FIG. 2

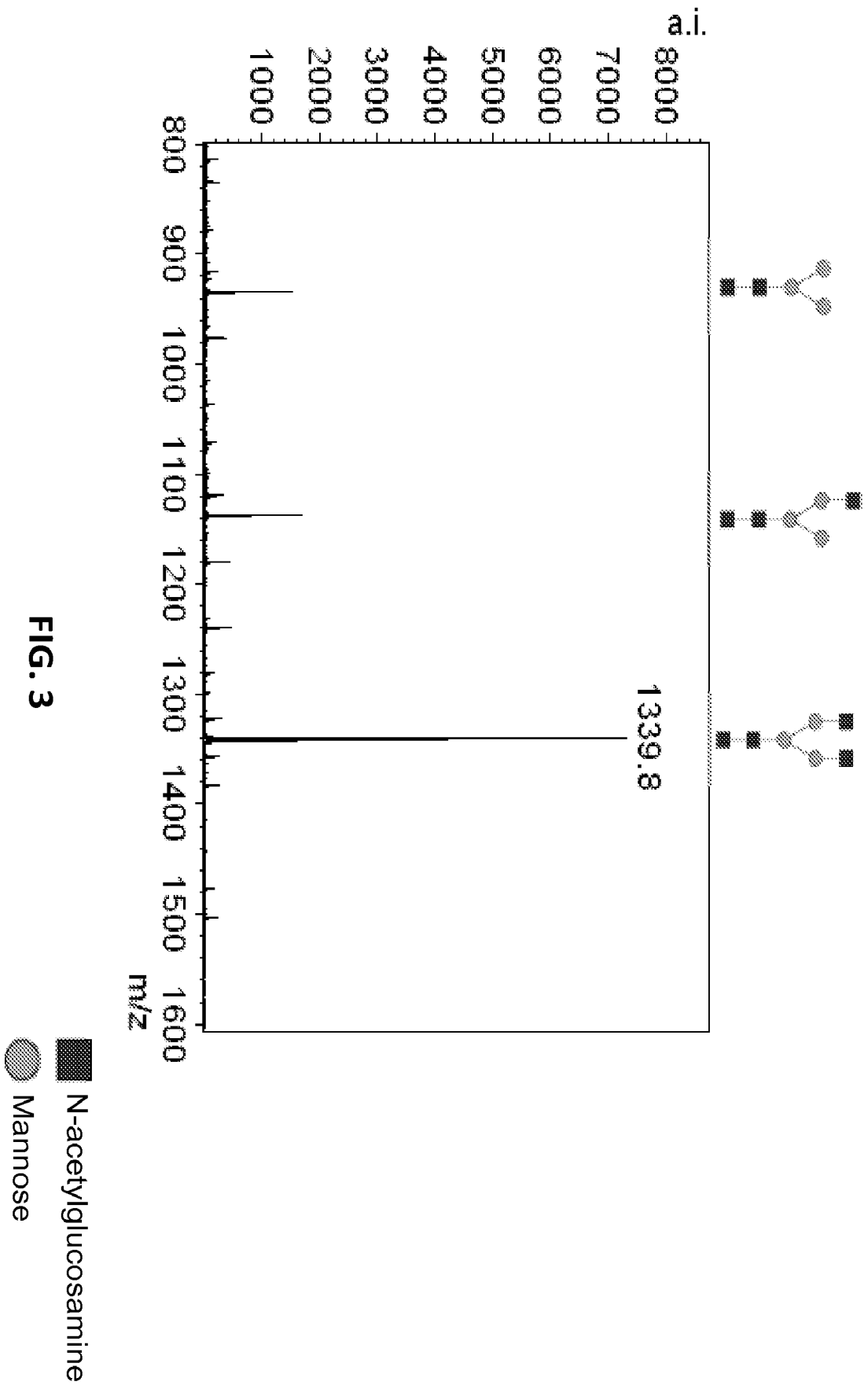

a.i.
8000
7000
6000
5000
4000
3000
2000
1000
800
900
1000
1100
1200
1300
1400
1500
1600
m/z
1339.8
N-acetylglucosamine
Mannose

FIG. 3

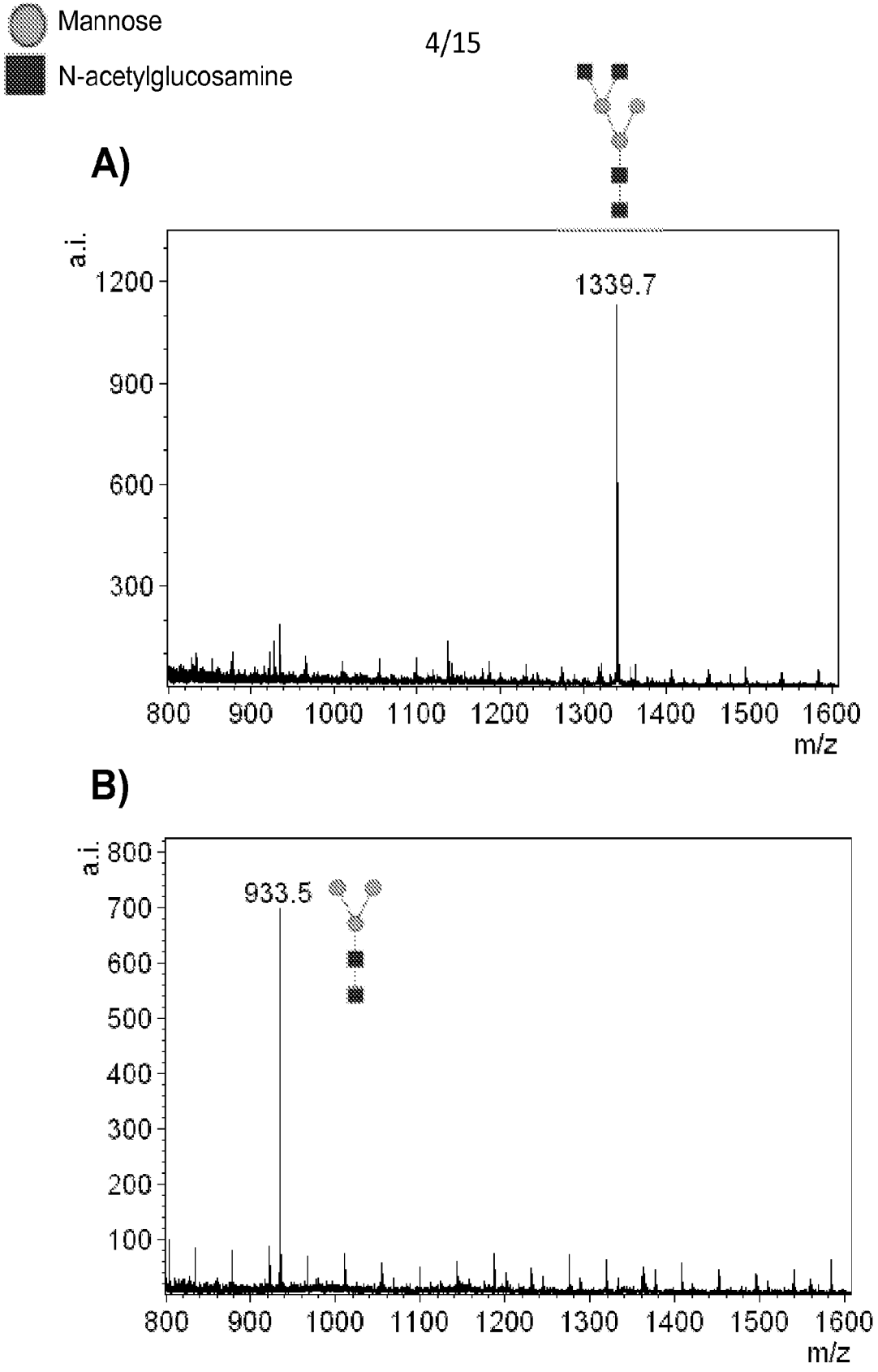

Mannose
N-acetylglucosamine
A)
a.i.
1200
900
600
300
1339.7
800 900 1000 1100 1200 1300 1400 1500 1600
m/z
B)
a.i.
800
700
600
500
400
300
200
100
933.5
800 900 1000 1100 1200 1300 1400 1500 1600
m/z

FIG. 4

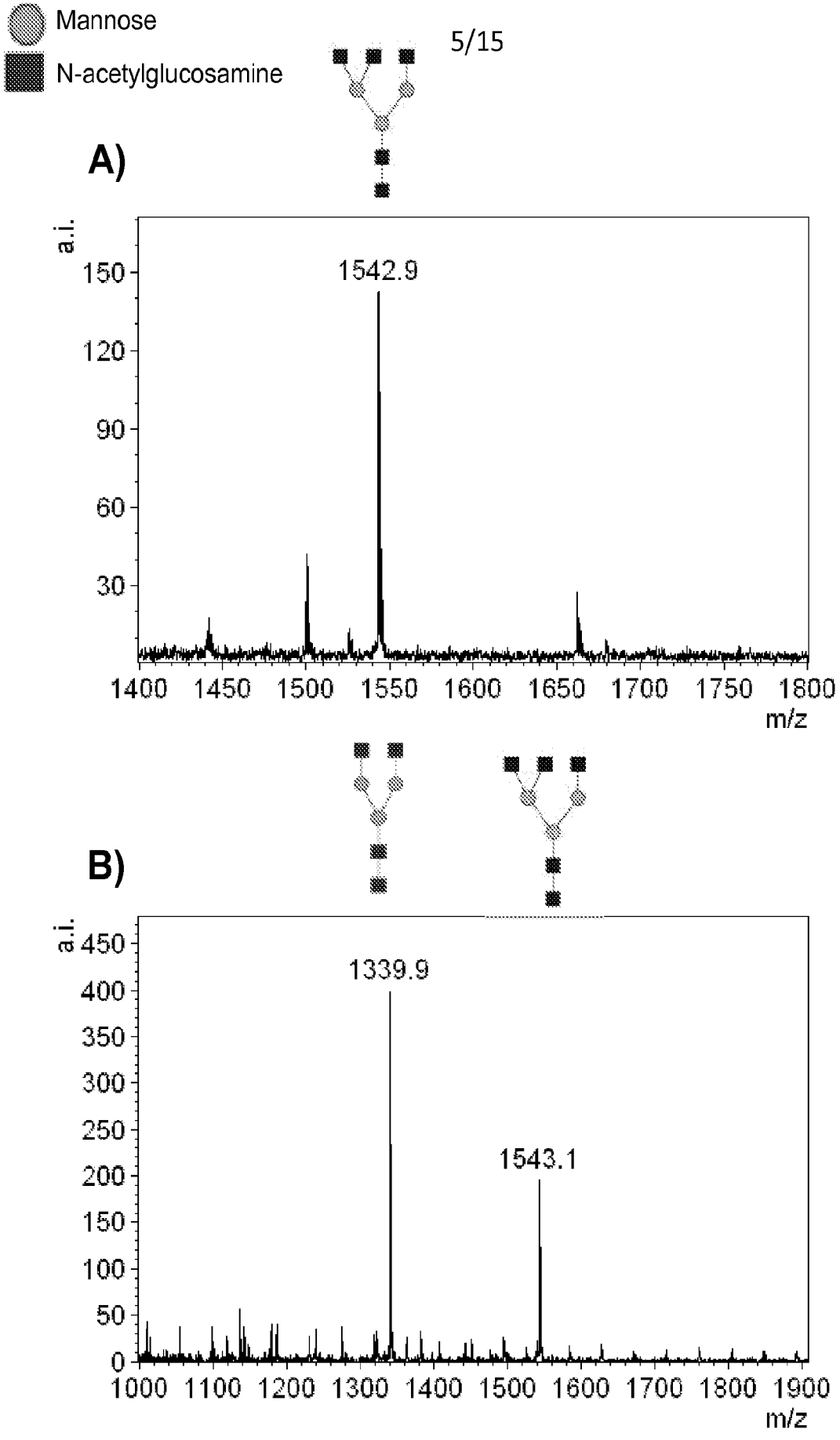

Mannose
N-acetylglucosamine
A)
a.i.
1542.9
150
120
90
60
30
1400 1450 1500 1550 1600 1650 1700 1750 1800
m/z
B)
a.i.
1339.9
1543.1
450
400
350
300
250
200
150
100
50
0
1000 1100 1200 1300 1400 1500 1600 1700 1800 1900
m/z

FIG. 5

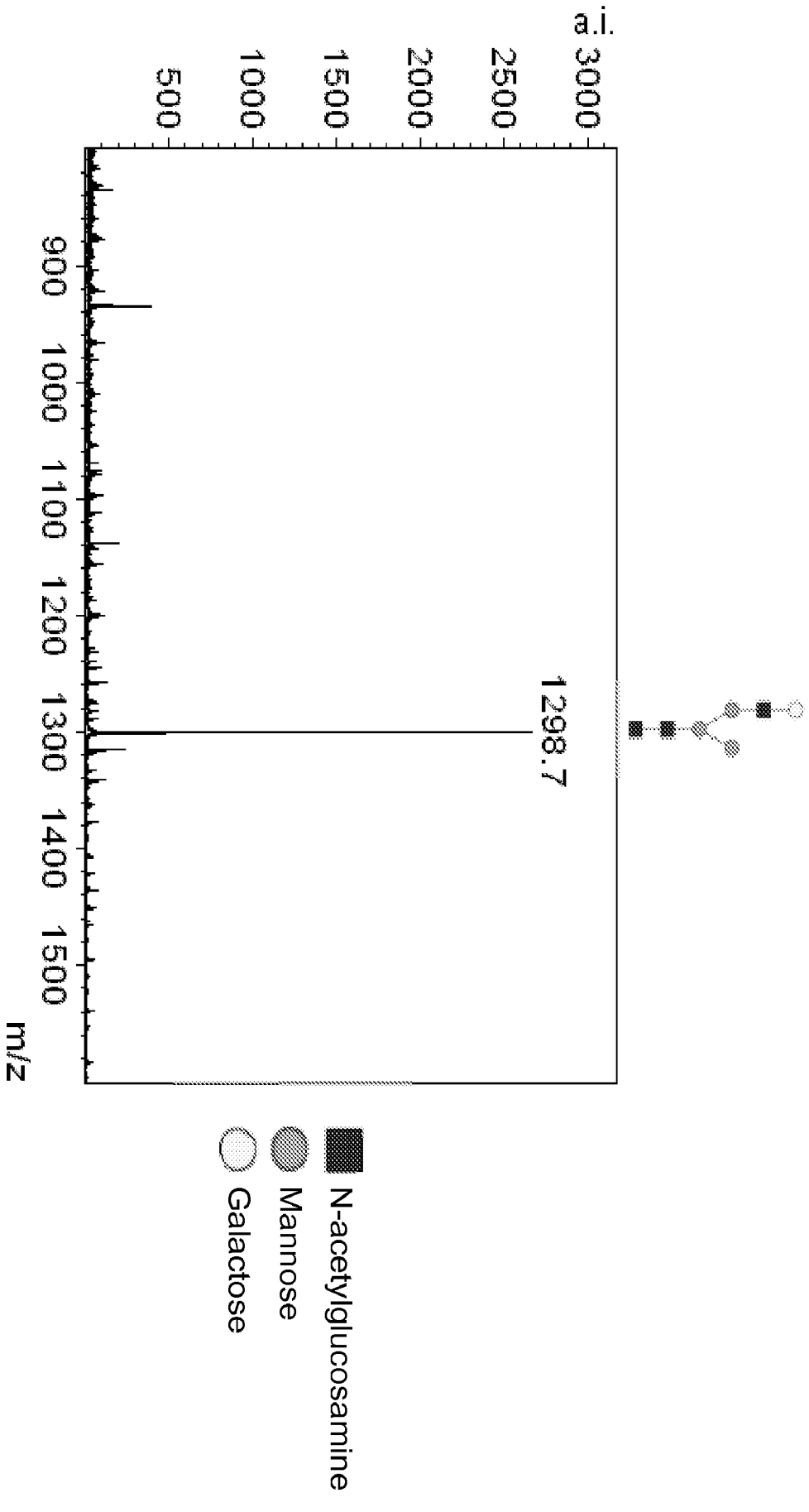

a.i.
3000
2500
2000
1500
1000
500
1298.7
900
1000
1100
1200
1300
1400
1500
m/z
N-acetylglucosamine
Mannose
Galactose

FIG. 6

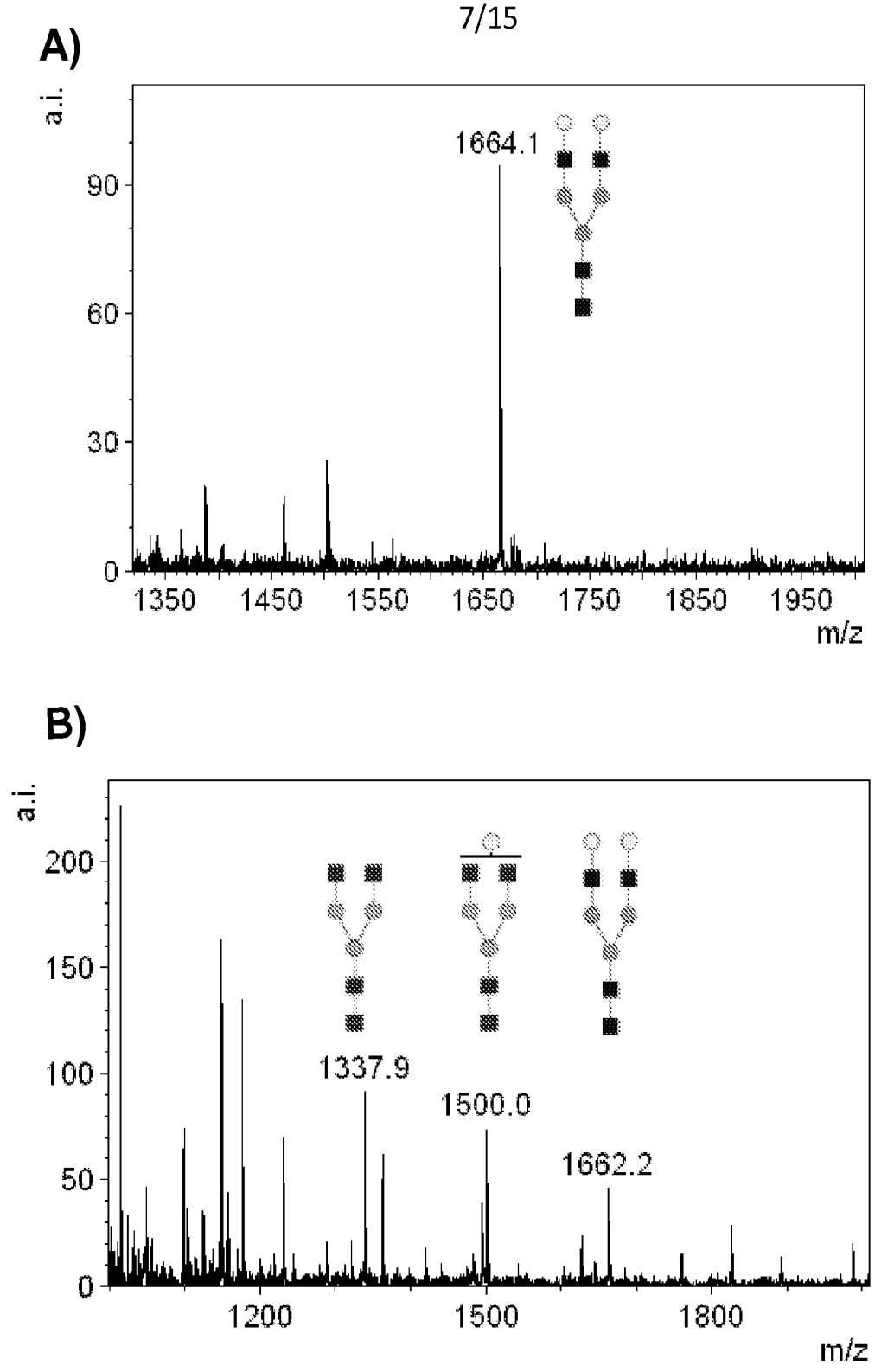

A)
a.i.
1664.1
90
60
30
0
1350
1450
1550
1650
1750
1850
1950
m/z
B)
a.i.
200
150
100
50
0
1337.9
1500.0
1662.2
1200
1500
1800
m/z
N-acetylglucosamine
Mannose
Galactose

FIG. 7

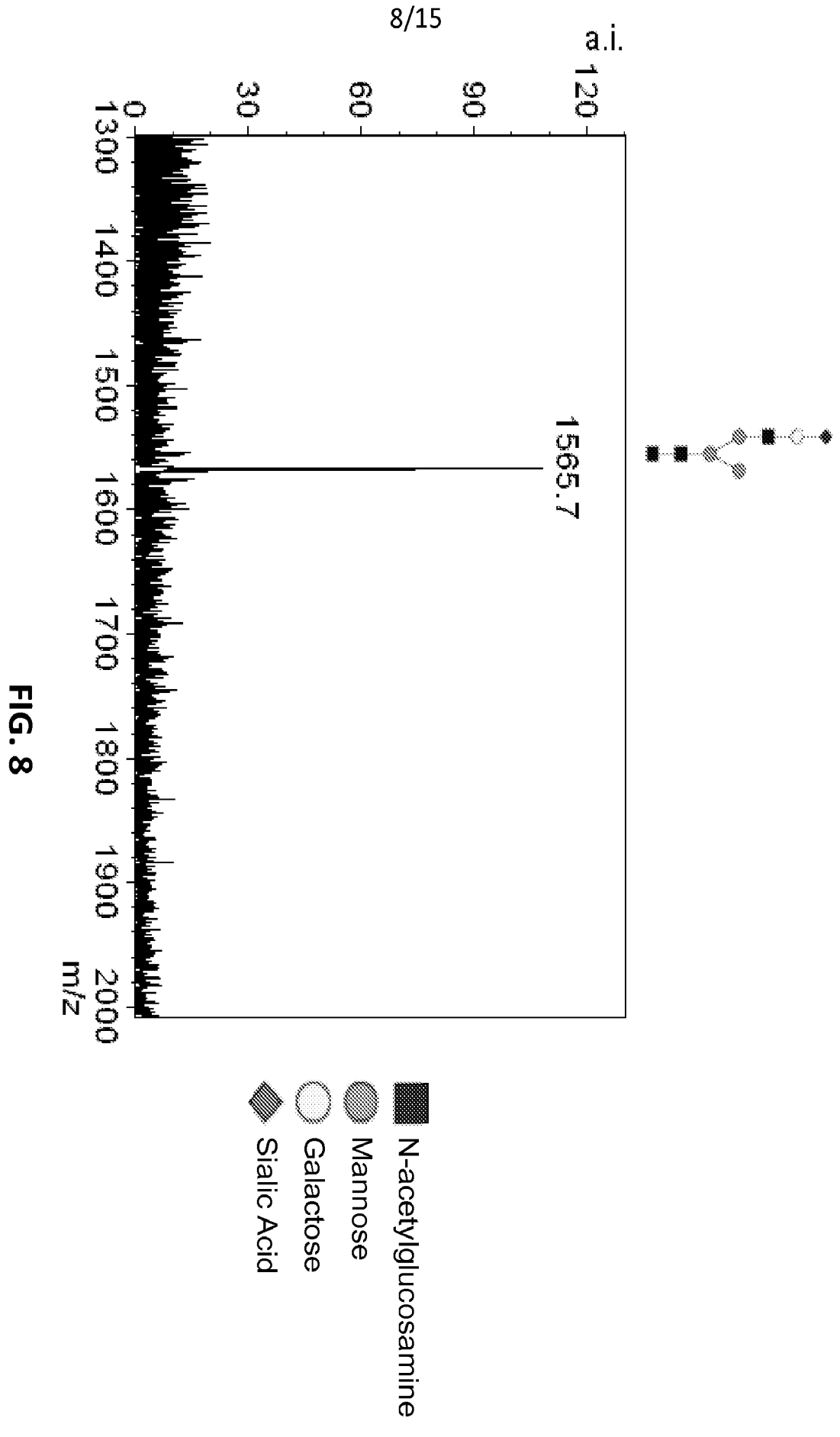

a.i.
120
90
60
30
0
1300
1400
1500
1600
1700
1800
1900
2000
m/z
1565.7
N-acetylglucosamine
Mannose
Galactose
Sialic Acid

FIG. 8

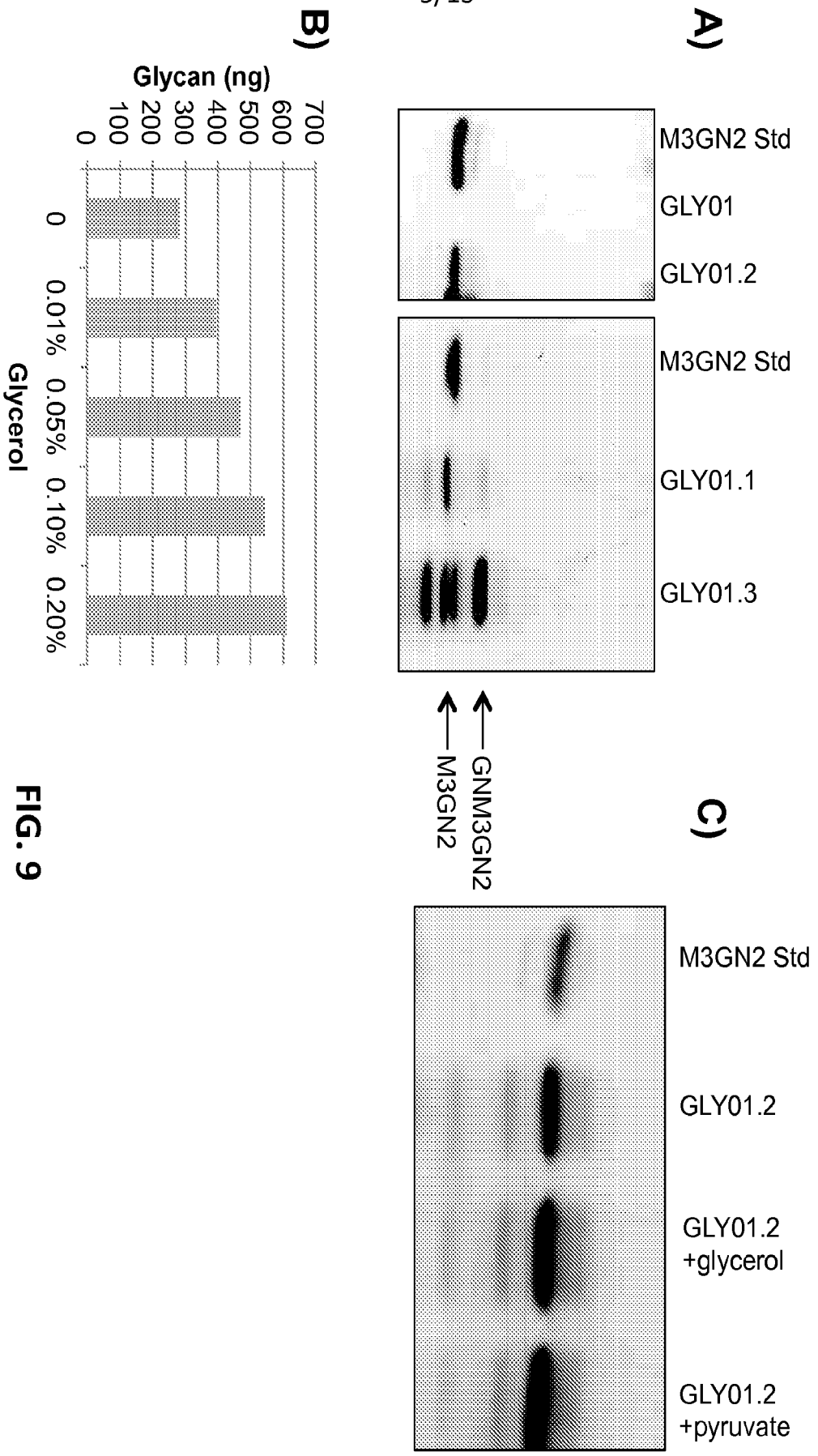
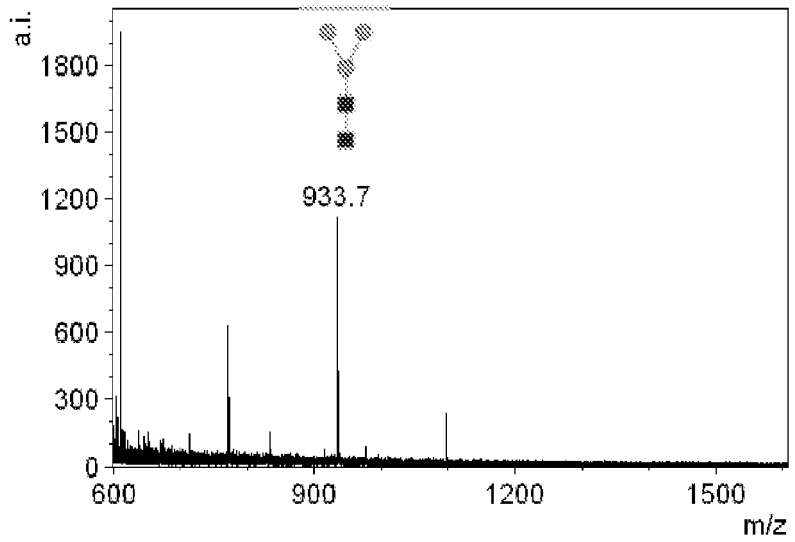

A)
M3GN2 Std
GLY01
GLY01.2
M3GN2 Std
GLY01.1
GLY01.3
M3GN2
GNM3GN2
B)
Glycan (ng)
0
100
200
300
400
500
600
700
Glycerol
0
0.01%
0.05%
0.10%
0.20%
C)
M3GN2 Std
GLY01.2
GLY01.2
+glycerol
GLY01.2
+pyruvate

FIG. 9

Mannose

N-acetylglucosamine

A)



D)

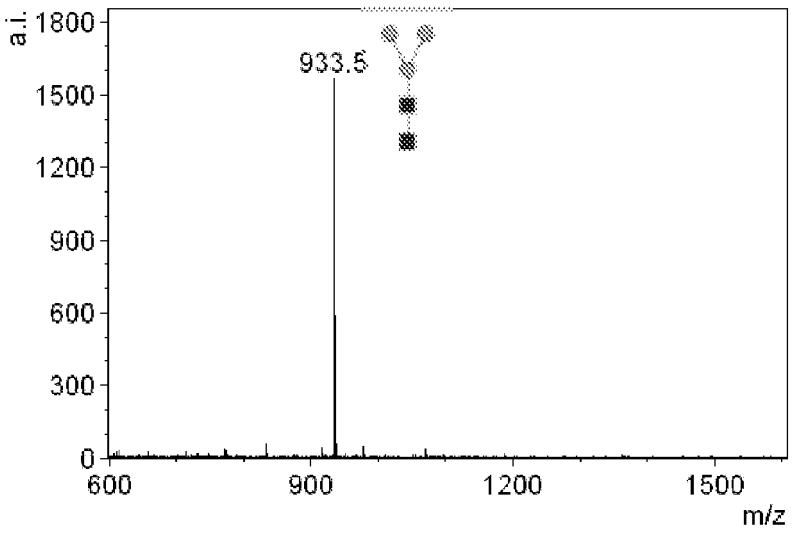
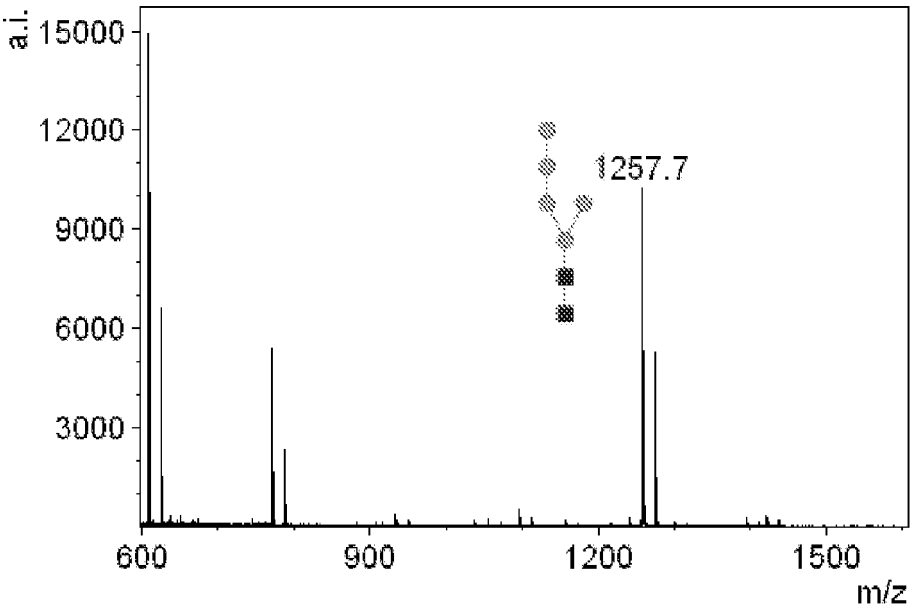


FIG. 10

Mannose

N-acetylglucosamine

B)



E)

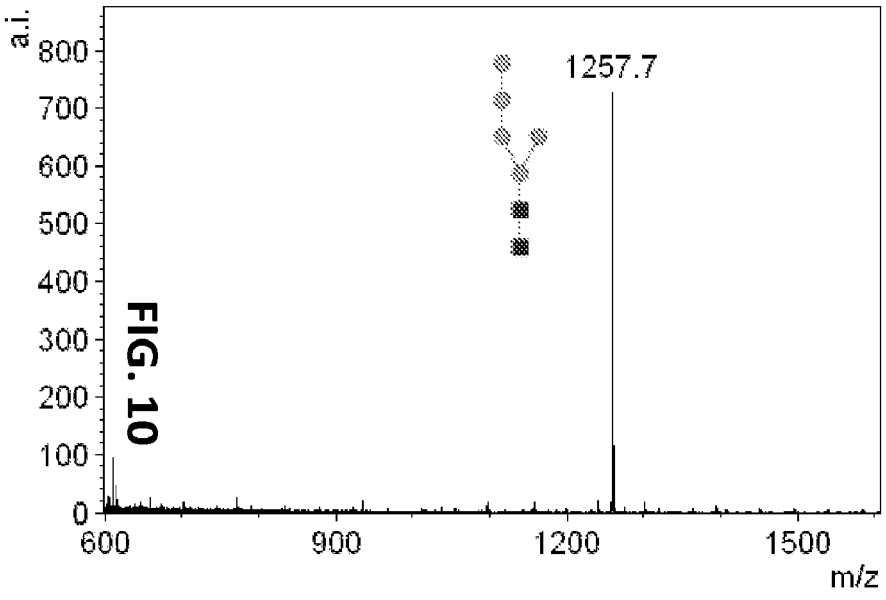


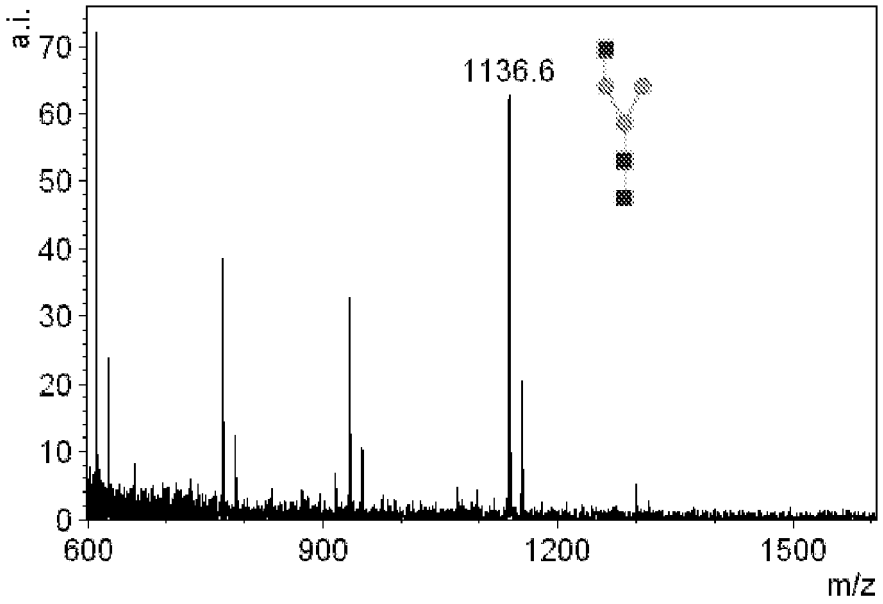
FIG. 10

FIG. 10

Mannose

N-acetylglucosamine

C)



F)

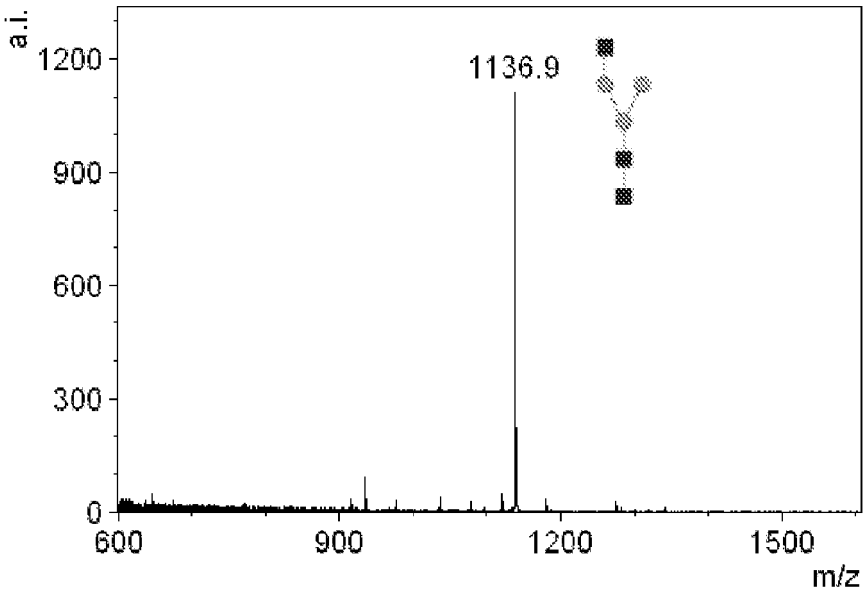


FIG. 10

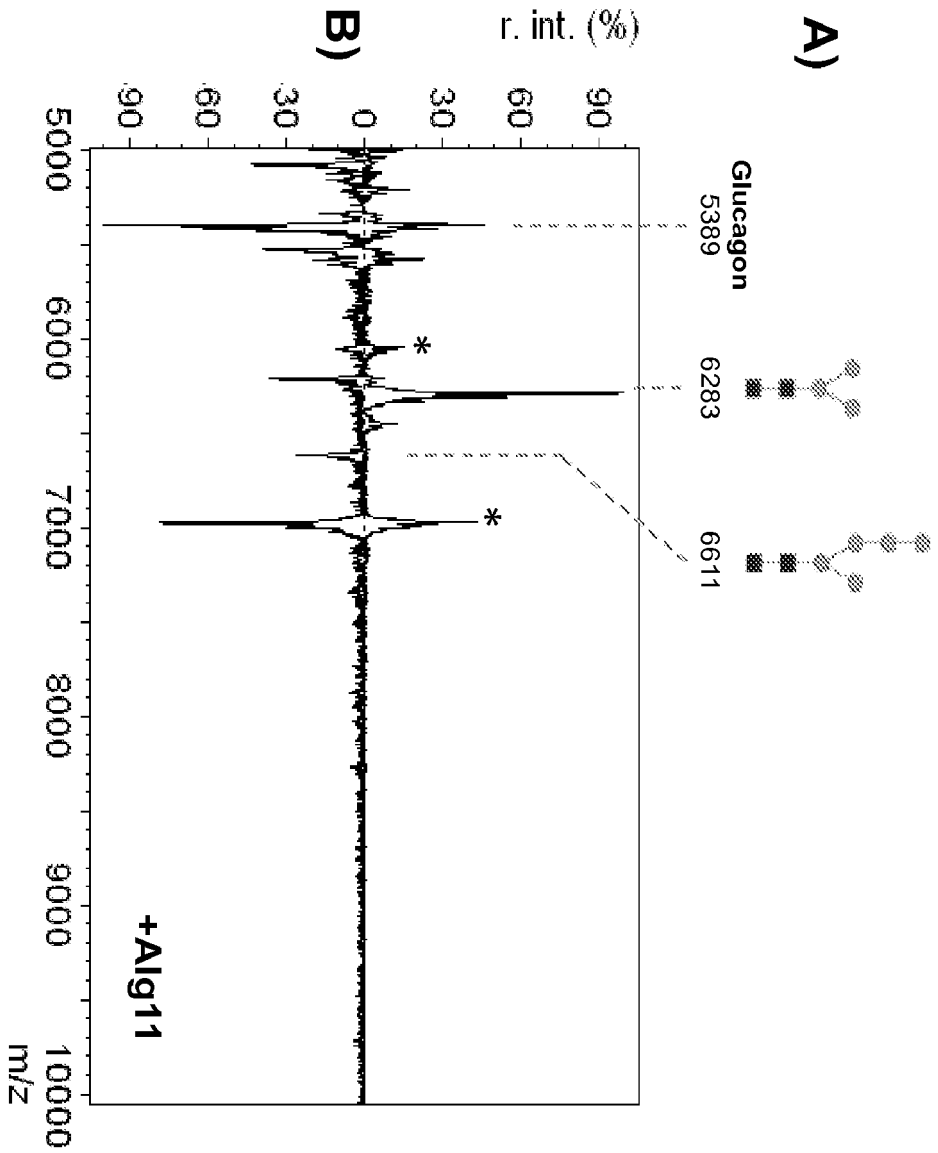

A)
B)
r. int. (%)
90
60
30
0
30
60
90
5000
6000
7000
8000
9000
10000
m/z
Glucagon
5389
6283
6611
*
*
+Alg11

FIG. 11

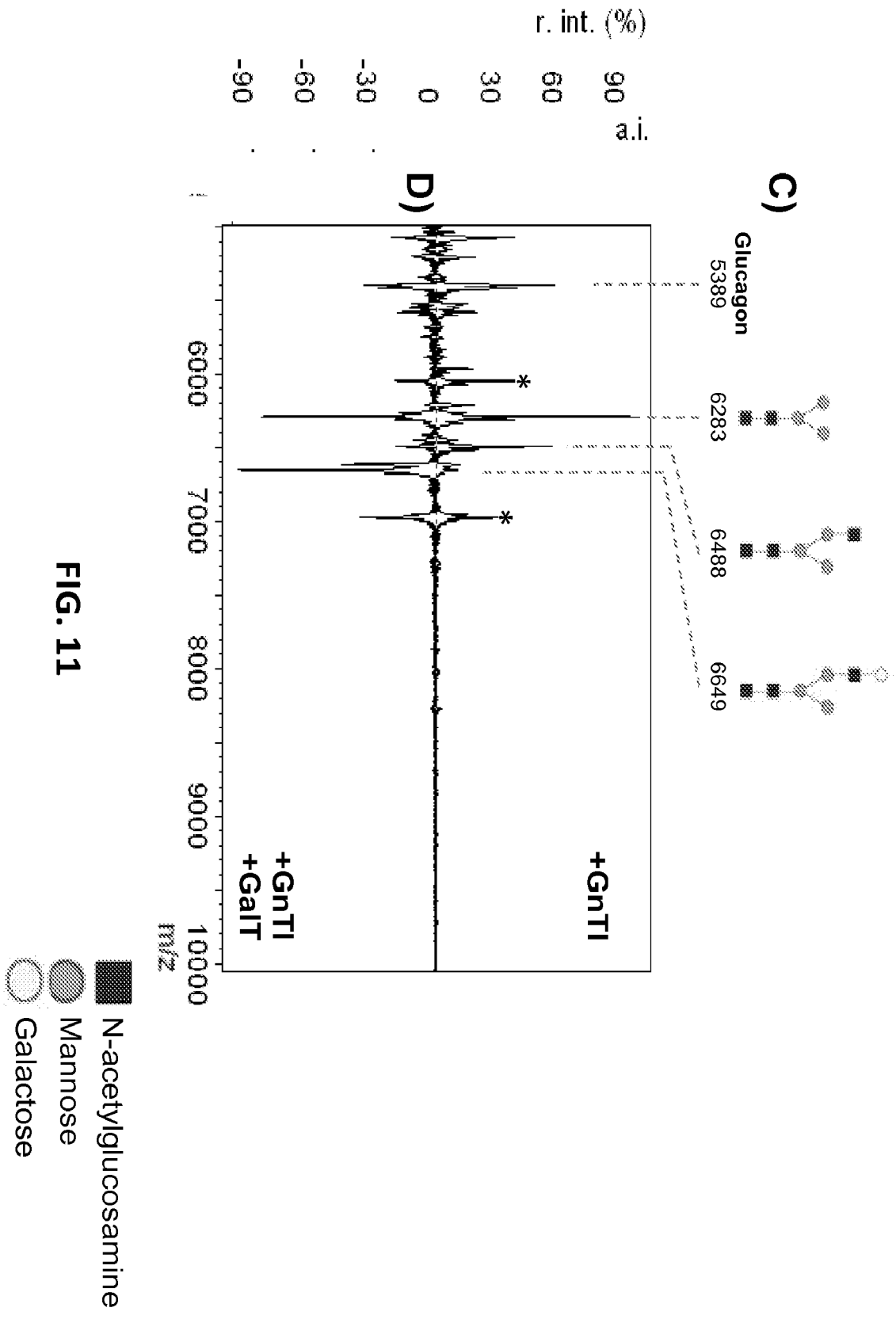

r. int. (%)
90
60
30
0
-30
-60
-90
a.i.
C)
Glucagon
5389
6283
6488
6649
D)
+GnTI
+GnTI
+GalT
6000
7000
8000
9000
10000
m/z
N-acetylglucosamine
Mannose
Galactose

FIG. 11

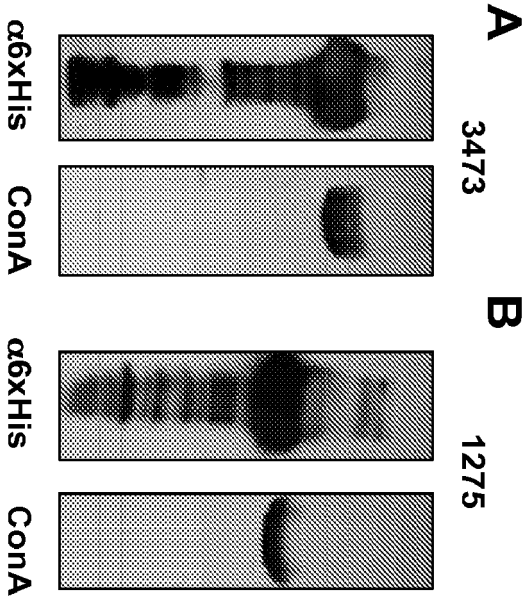


FIG. 12