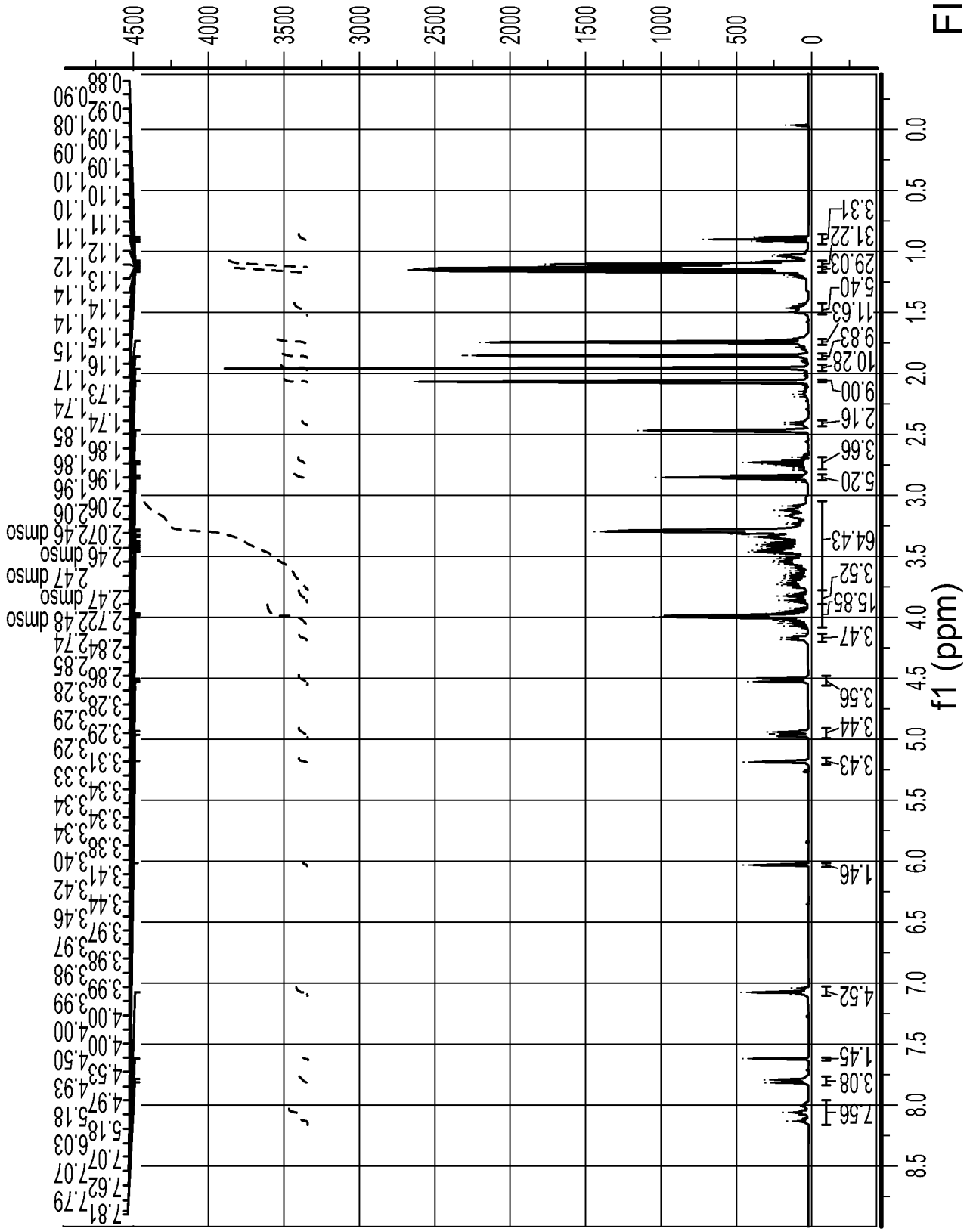
f1 (ppm)
7.81 7.79
7.62 7.07
7.07 6.03
5.18 5.18
4.97 4.93
4.53 4.50
4.00 4.00
3.99 3.99
3.98 3.98
3.97 3.97
3.44 3.46
3.41 3.42
3.38 3.40
3.34 3.34
3.34 3.34
3.31 3.33
3.29 3.29
3.28 3.28
2.86 2.85
2.84 2.74
2.72 2.48 dmso
2.47 dmso
2.47 dmso
2.46 dmso
2.072.46 dmso
2.06 2.06
1.96 1.96
1.86 1.85
1.74 1.74
1.73 1.17
1.16 1.15
1.14 1.14
1.13 1.12
1.12 1.11
1.11 1.10
1.10 1.09
1.09 1.09
0.92 1.08
0.88 0.90
7.56
3.08
1.45
4.52
1.46
3.43
3.44
3.56
3.47
15.85
3.52
64.43
5.20
3.66
2.16
9.00
10.28
9.83
11.63
5.40
29.03
31.22
3.31

FIG. 1

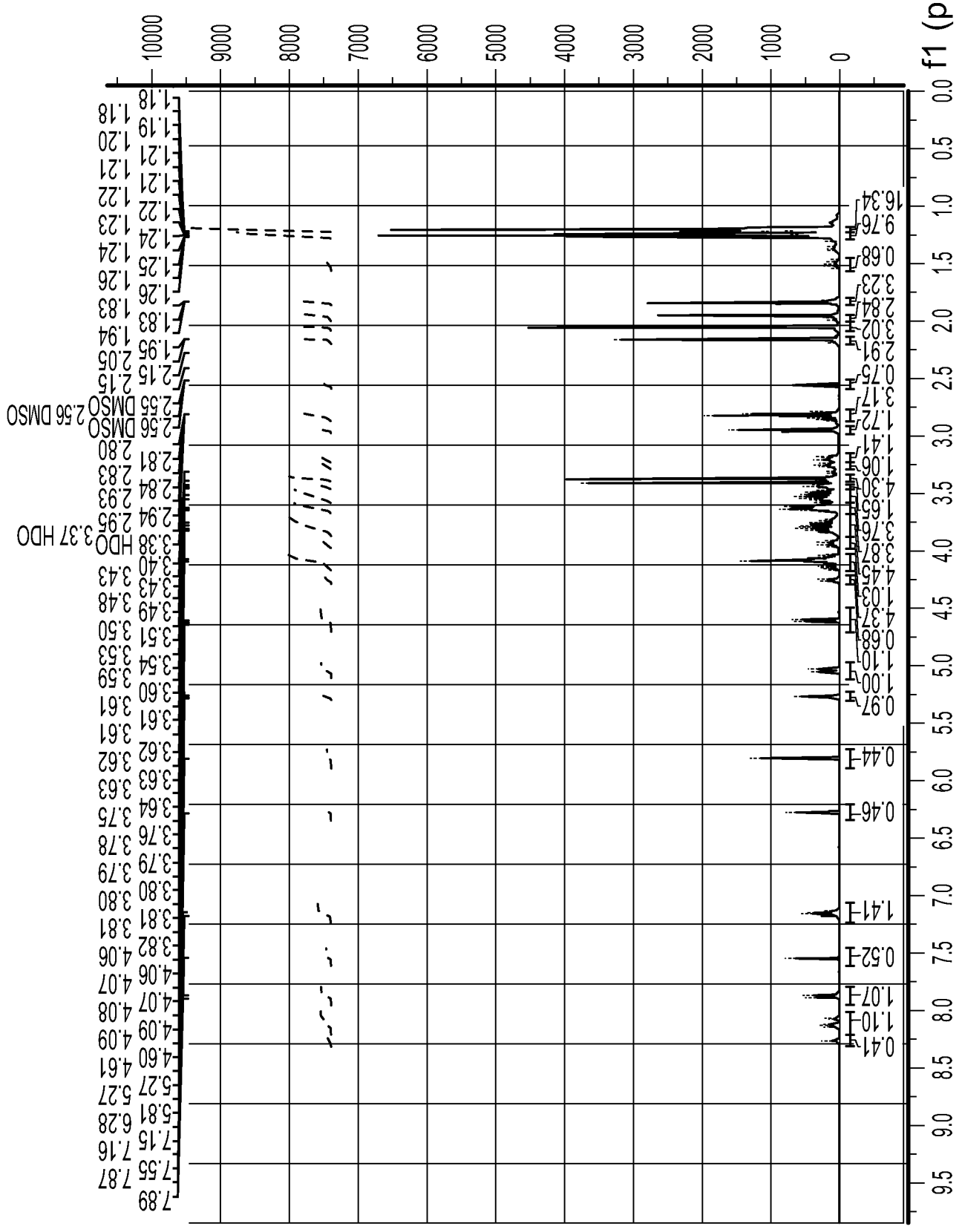

FIG. 1A

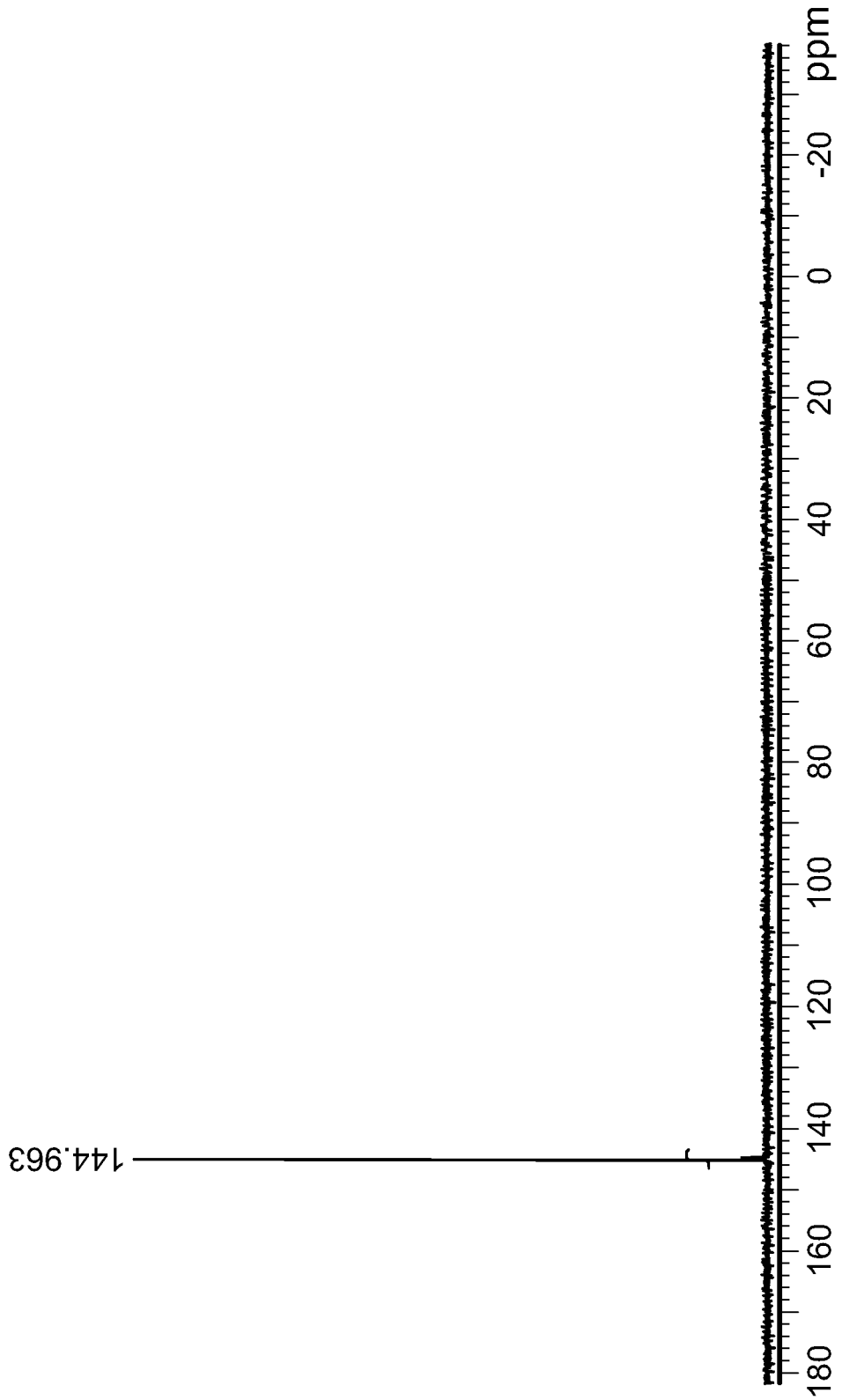

FIG. 2

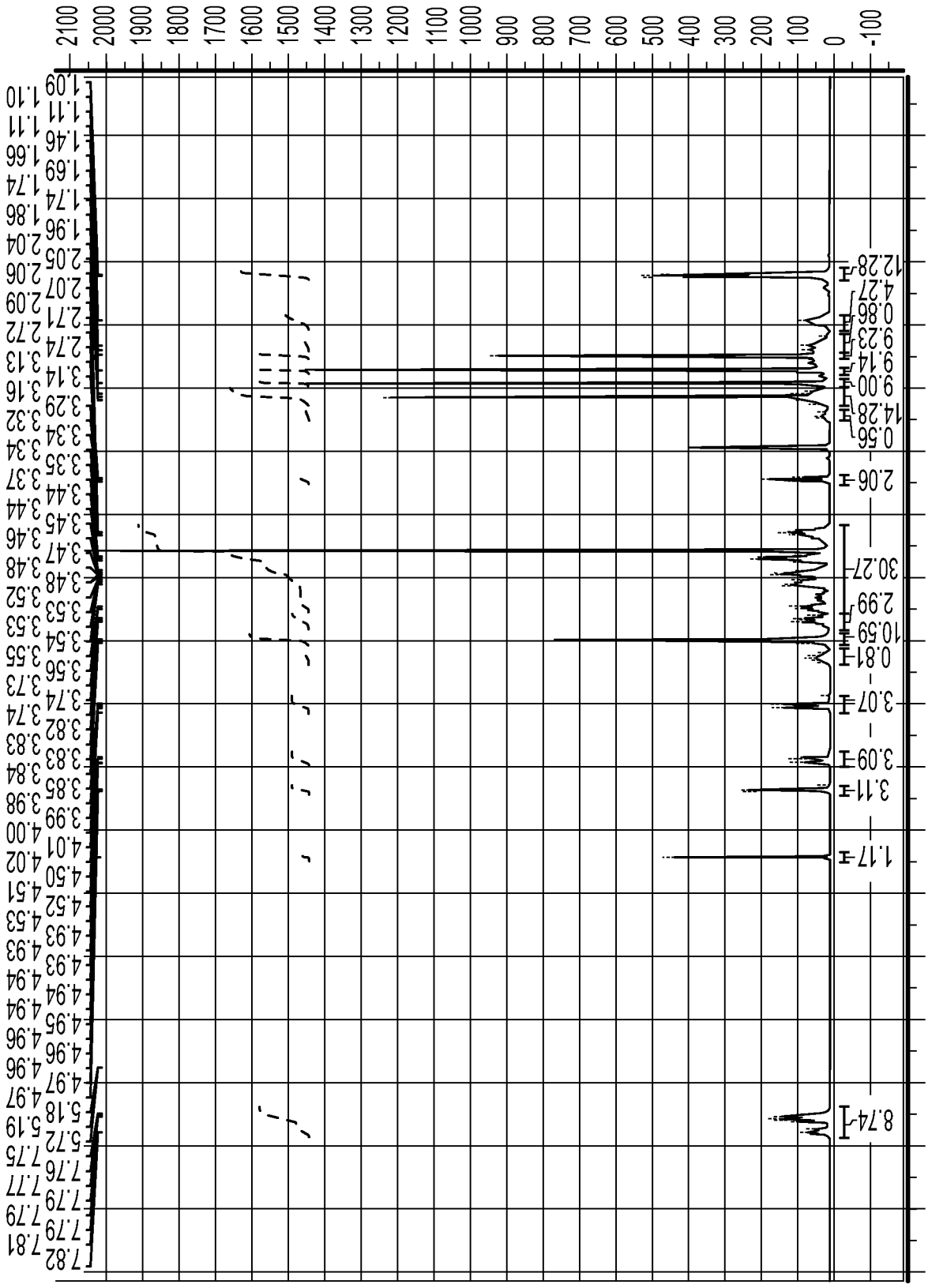
f1 (ppm)
8.74
1.17
3.11
3.09
3.07
0.81
10.59
2.99
30.27
2.06
0.56
14.28
9.00
9.14
9.23
0.86
4.27
12.28

FIG. 2A

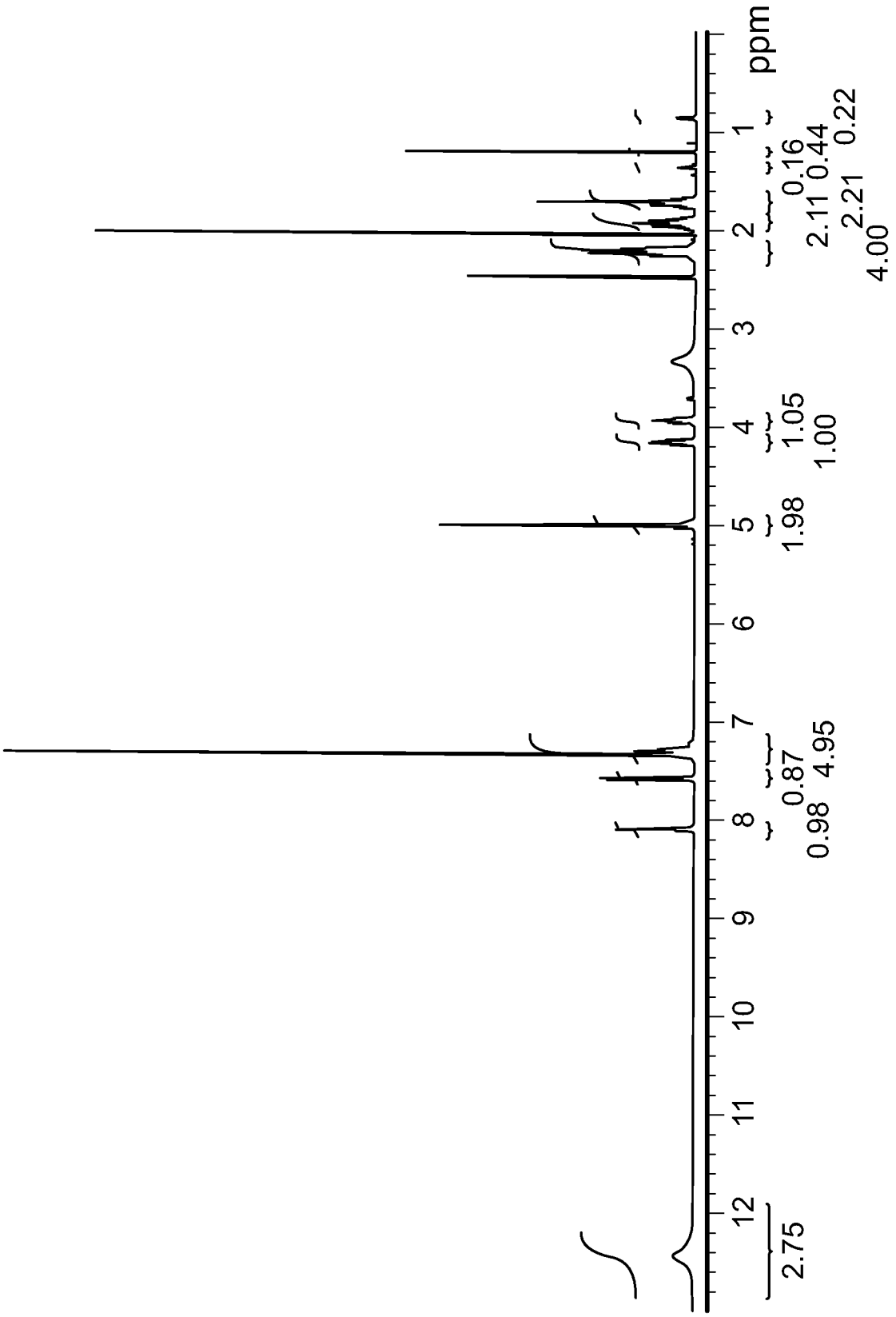
ppm
12
11
10
9
8
7
6
5
4
3
2
1
2.75
0.98
0.87
4.95
1.98
1.05
1.00
4.00
2.21
2.11
0.44
0.16
0.22

FIG. 2B

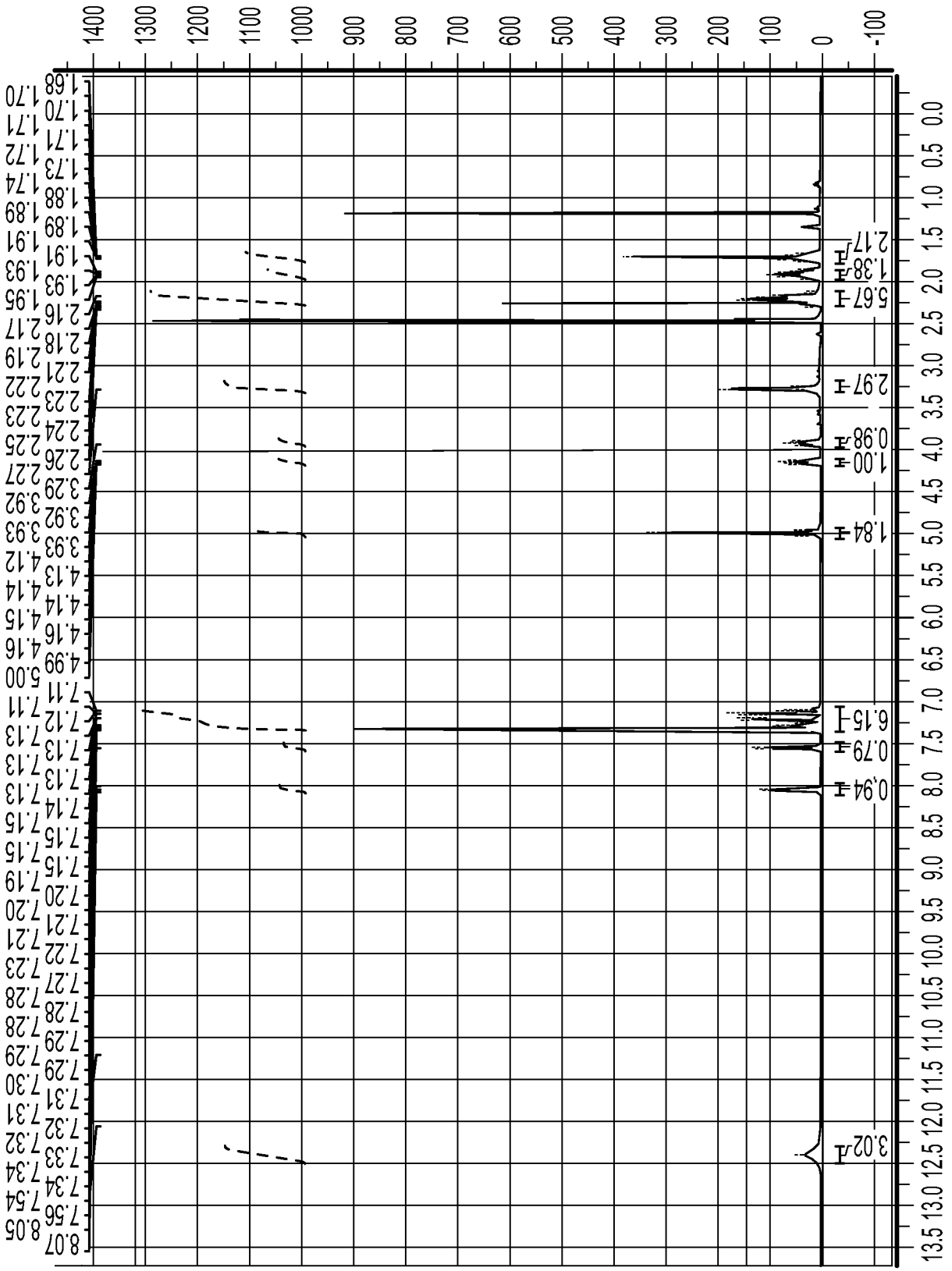

FIG. 2C

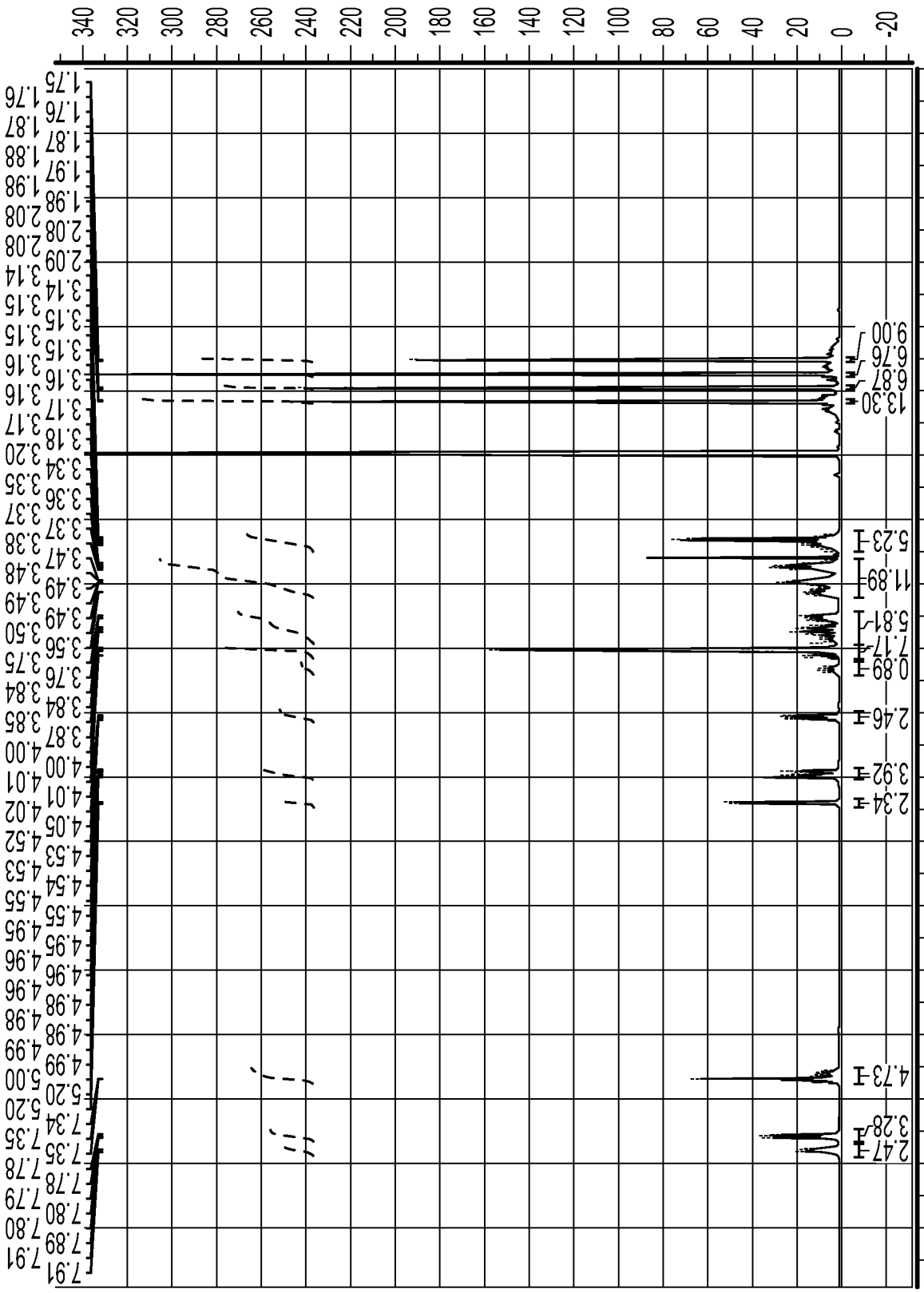
f1 (ppm)
13.30
6.87
6.76
9.00
5.23
11.89
5.81
7.17
0.89
2.46
3.92
2.34
4.73
3.28
2.47

FIG. 2D

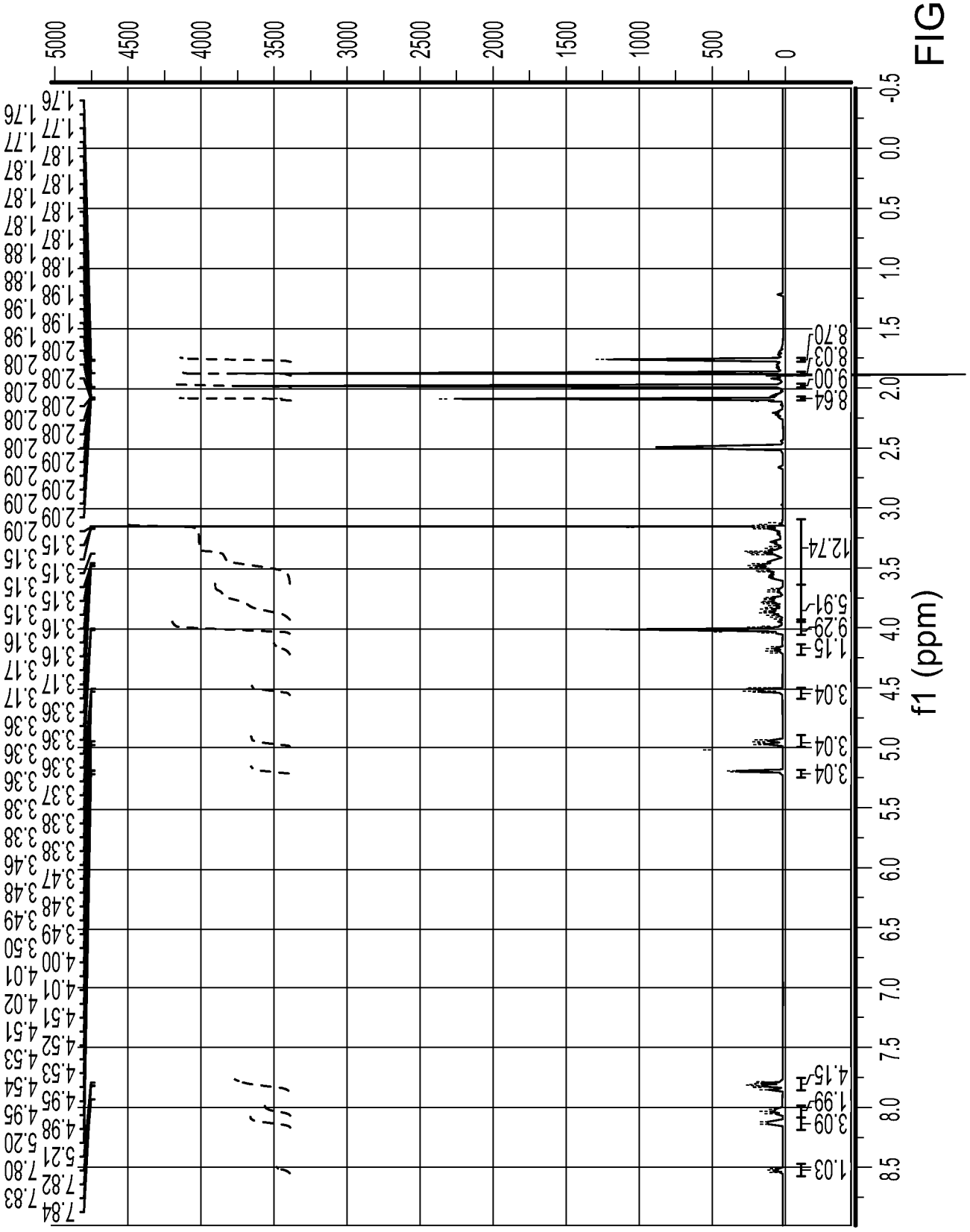
f1 (ppm)
8.70
8.03
9.00
8.64
12.74
5.91
9.29
1.15
3.04
3.04
3.04
1.03
3.09
1.99
4.15

FIG. 2E

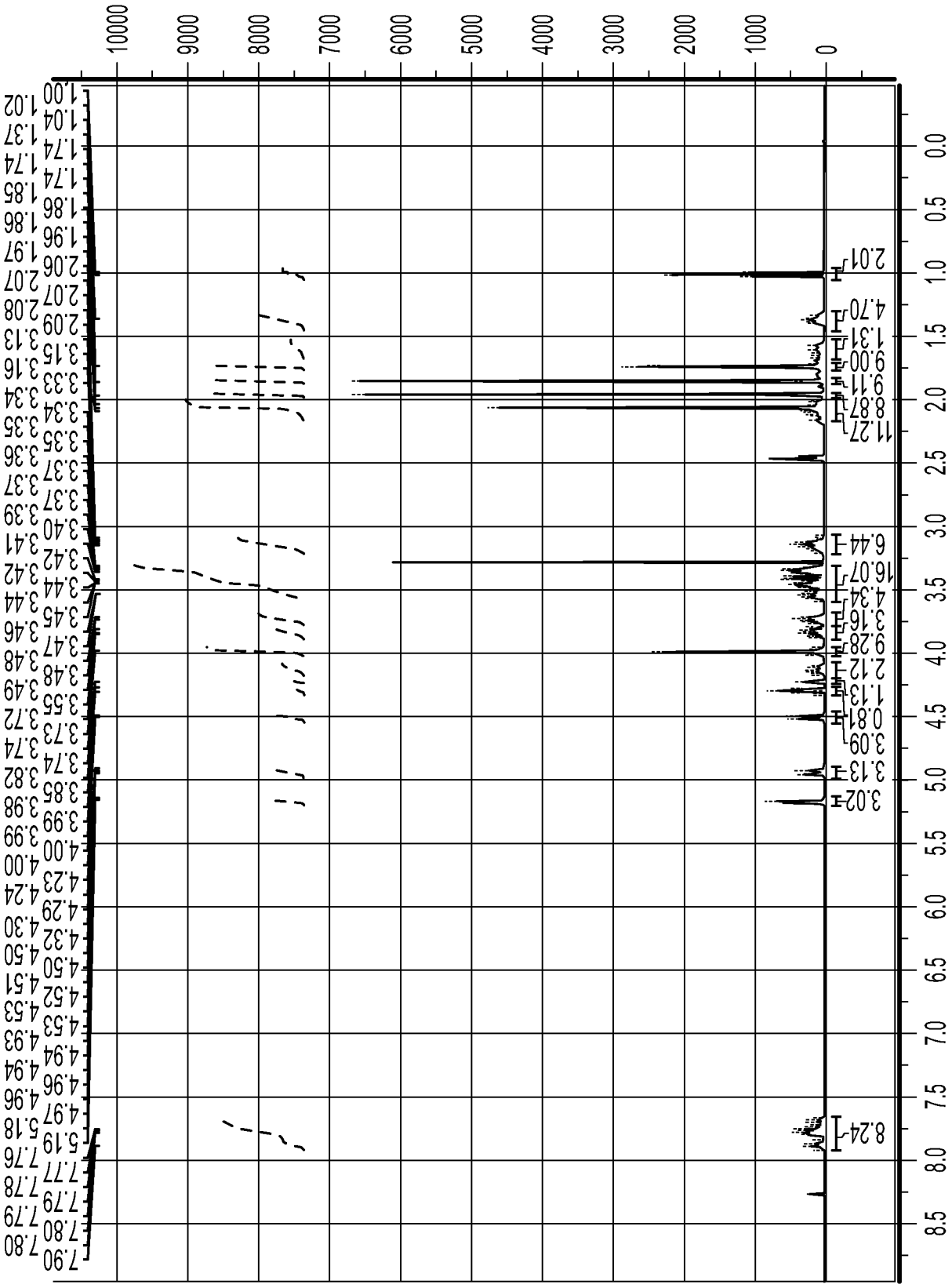
f1 (ppm)
8.24
3.02
3.13
3.09
0.81
1.13
2.12
9.28
3.16
4.34
16.07
6.44
11.27
8.87
9.11
9.00
1.31
4.70
2.01

FIG. 2F

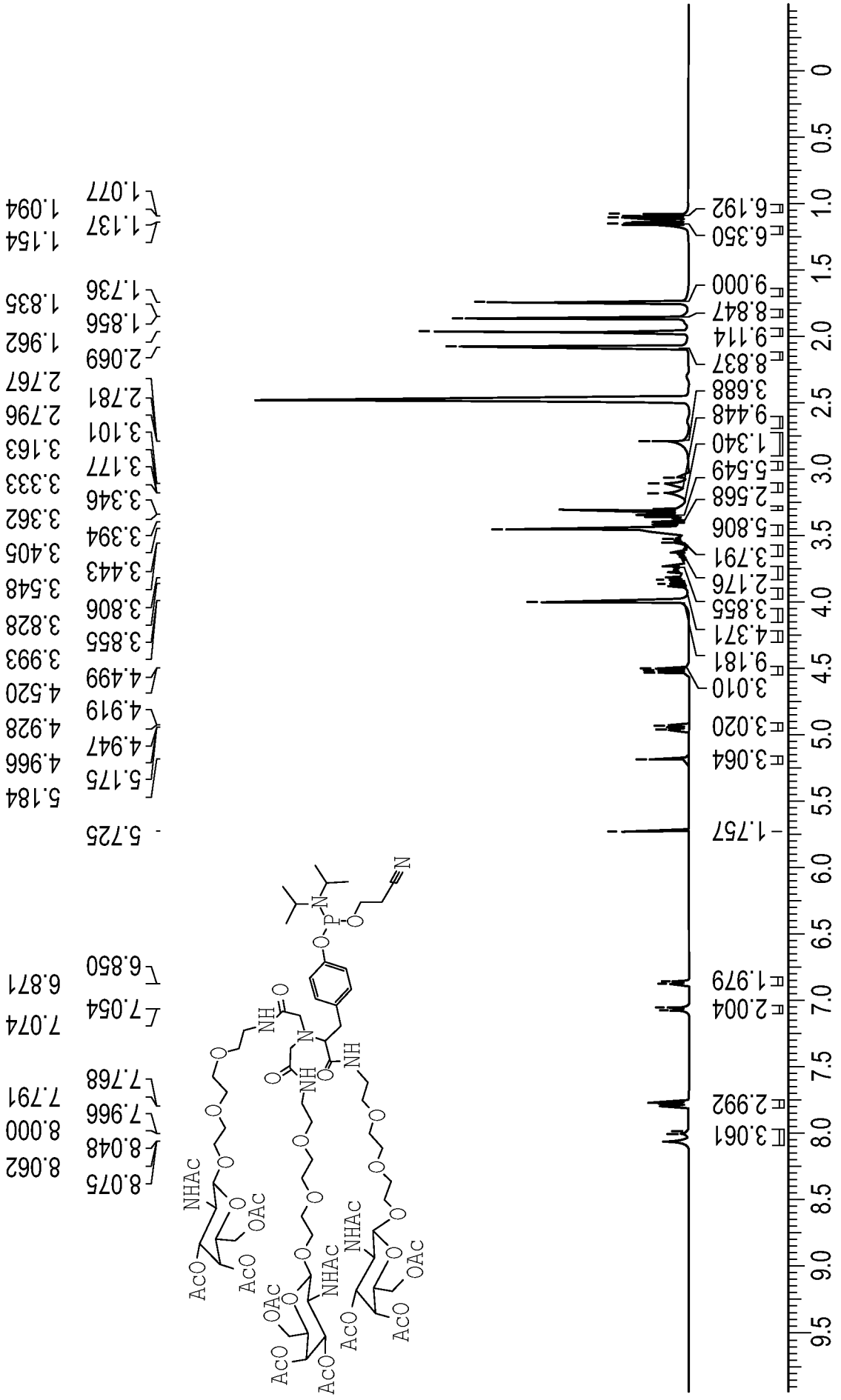
8.075
8.062
8.048
8.000
7.966
7.791
7.768
7.074
7.054
6.871
6.850
5.725
5.184
5.175
4.966
4.947
4.928
4.919
4.499
4.520
3.993
3.855
3.828
3.806
3.548
3.443
3.405
3.394
3.362
3.346
3.333
3.177
3.163
3.101
2.796
2.781
2.767
2.069
1.962
1.856
1.835
1.736
1.154
1.137
1.094
1.077
6.192
6.350
9.000
8.847
9.114
8.837
3.688
9.448
1.340
5.549
2.568
5.806
3.791
2.176
3.855
4.371
9.181
3.010
3.020
3.064
1.757
1.979
2.004
2.992
3.061
NHAc
OAc
AcO
NH
N
O
P
N
O
O
N
9.5
9.0
8.5
8.0
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0

FIG. 3

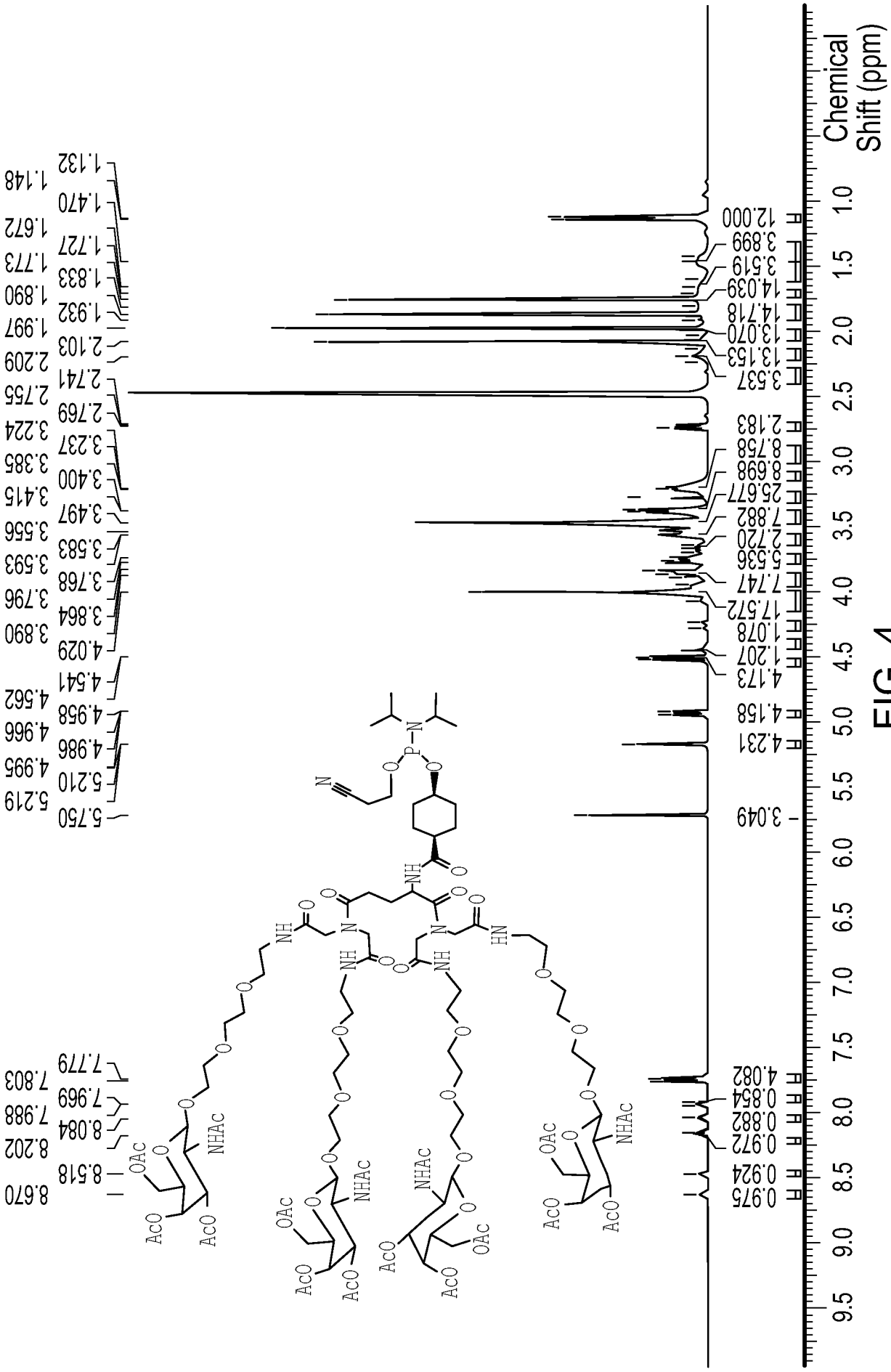
Chemical Shift (ppm)
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5
9.0
9.5
12.000
3.899
3.519
14.039
14.718
13.070
13.153
3.537
2.183
8.758
8.698
25.677
7.882
2.720
5.536
7.747
17.572
1.078
1.207
4.173
4.158
4.231
3.049
4.082
0.854
0.882
0.972
0.924
0.975
1.132
1.470
1.672
1.727
1.773
1.833
1.890
1.932
1.997
2.103
2.209
2.741
2.755
2.769
3.224
3.237
3.385
3.400
3.415
3.497
3.556
3.583
3.593
3.768
3.796
3.864
3.890
4.029
4.541
4.562
4.958
4.966
4.986
4.995
5.210
5.219
5.750
7.779
7.803
7.969
7.988
8.084
8.202
8.518
8.670
NH
HN
NHAc
OAc
AcO

FIG. 4

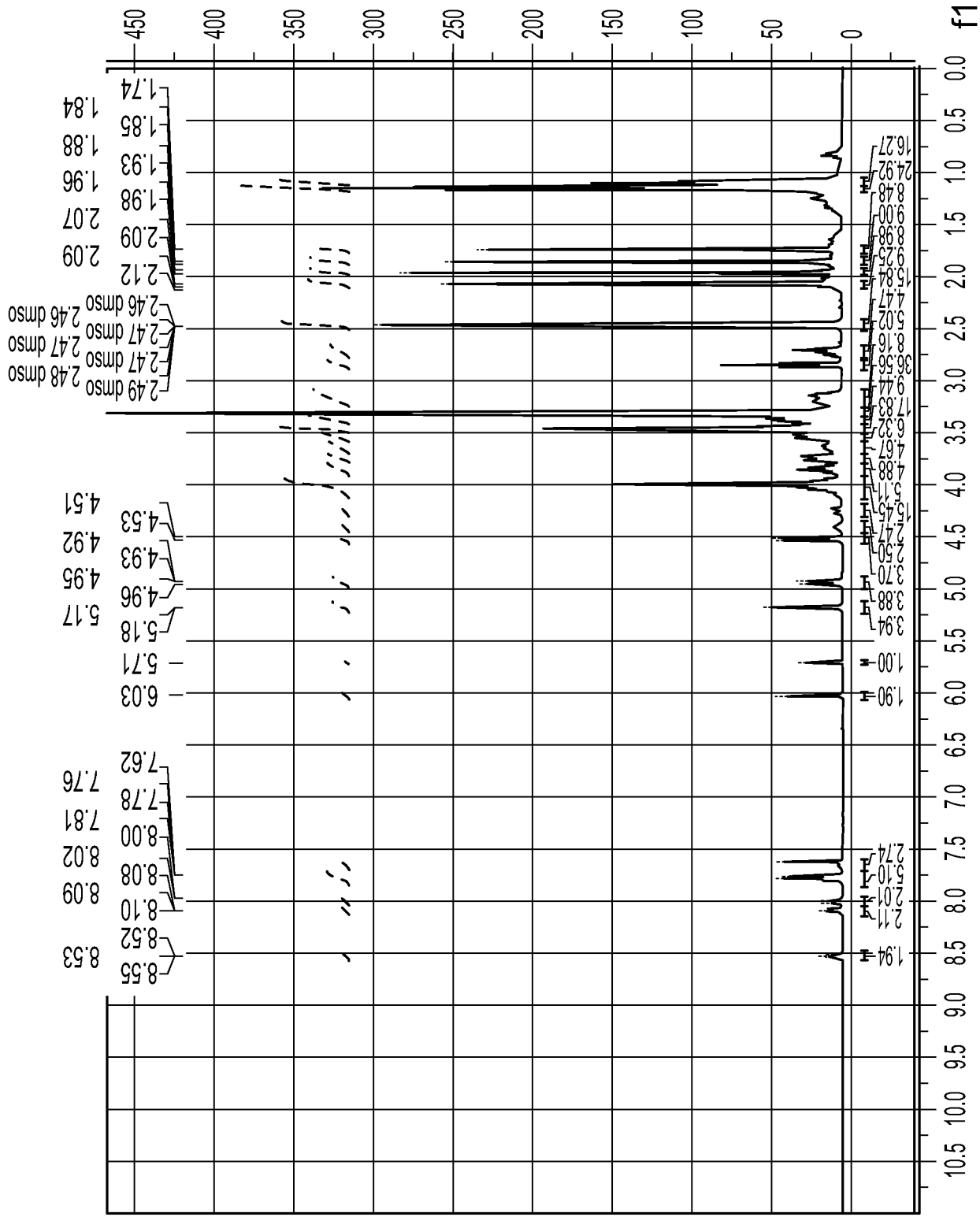
f1 (ppm)
8.55
8.52
8.10
8.08
8.00
7.78
7.62
6.03
5.71
5.18
4.96
4.93
4.53
2.49 dmso
2.47 dmso
2.47 dmso
2.46 dmso
2.12
2.09
1.98
1.93
1.85
1.74
8.53
8.09
8.02
7.81
7.76
5.17
4.95
4.92
4.51
2.48 dmso
2.47 dmso
2.46 dmso
2.09
2.07
1.96
1.88
1.84

FIG. 5

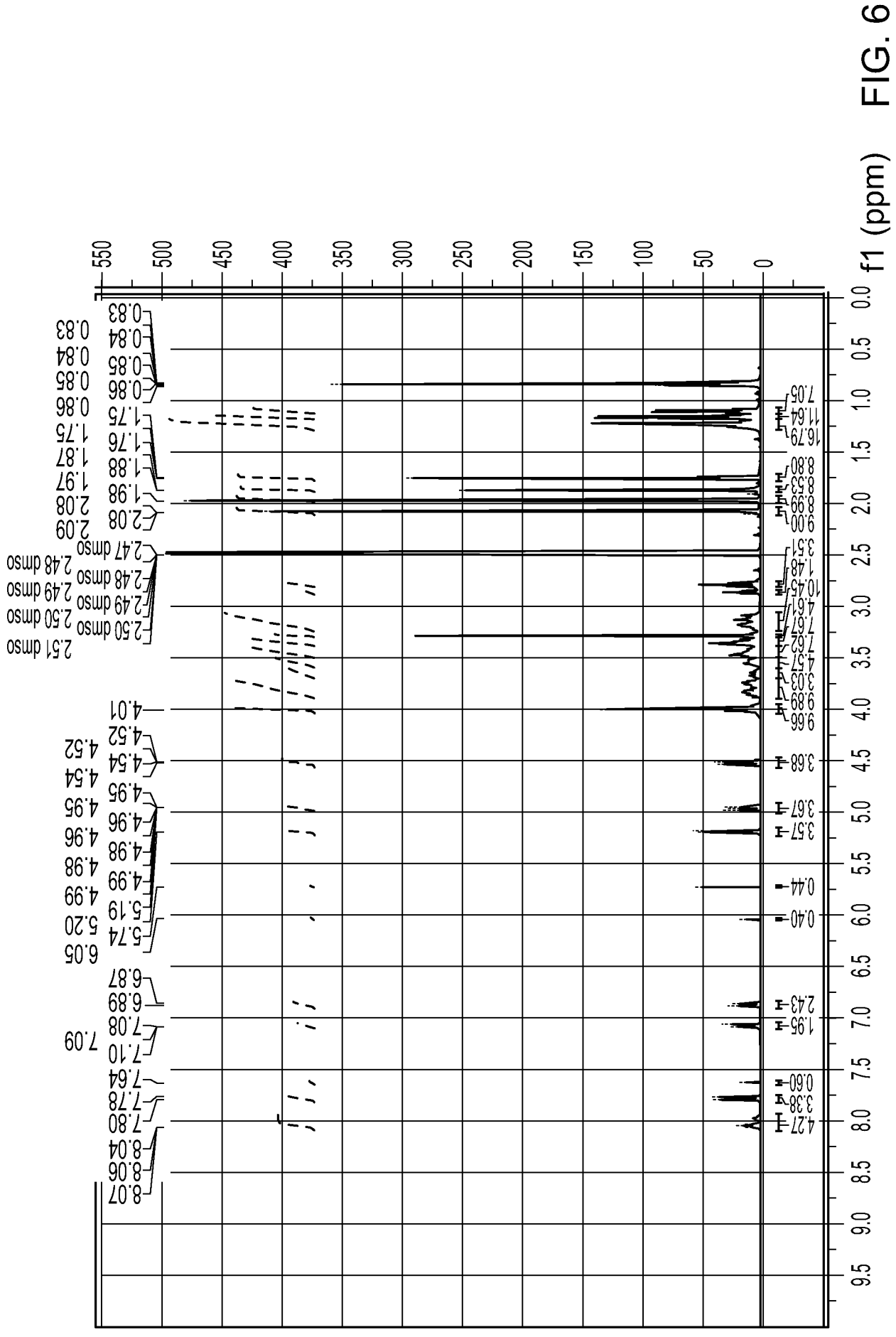
f1 (ppm)
0.0
0.5
1.0
1.5
2.0
2.5
3.0
3.5
4.0
4.5
5.0
5.5
6.0
6.5
7.0
7.5
8.0
8.5
9.0
9.5
550
500
450
400
350
300
250
200
150
100
50
0
16.79
11.64
7.05
9.00
8.99
8.53
8.80
3.51
1.48
10.45
4.61
7.67
7.62
4.57
3.03
9.89
9.66
3.68
3.67
3.57
0.44
0.40
1.95
2.43
4.27
3.38
0.60
8.07
8.06
8.04
7.80
7.78
7.64
7.10
7.08
6.89
6.87
6.05
5.74
5.20
5.19
4.99
4.98
4.96
4.95
4.54
4.52
4.01
2.51 dmso
2.50 dmso
2.49 dmso
2.48 dmso
2.47 dmso
2.09
2.08
1.98
1.97
1.88
1.87
1.76
1.75
0.86
0.85
0.84
0.83

FIG. 6



FIG. 7



FIG. 8

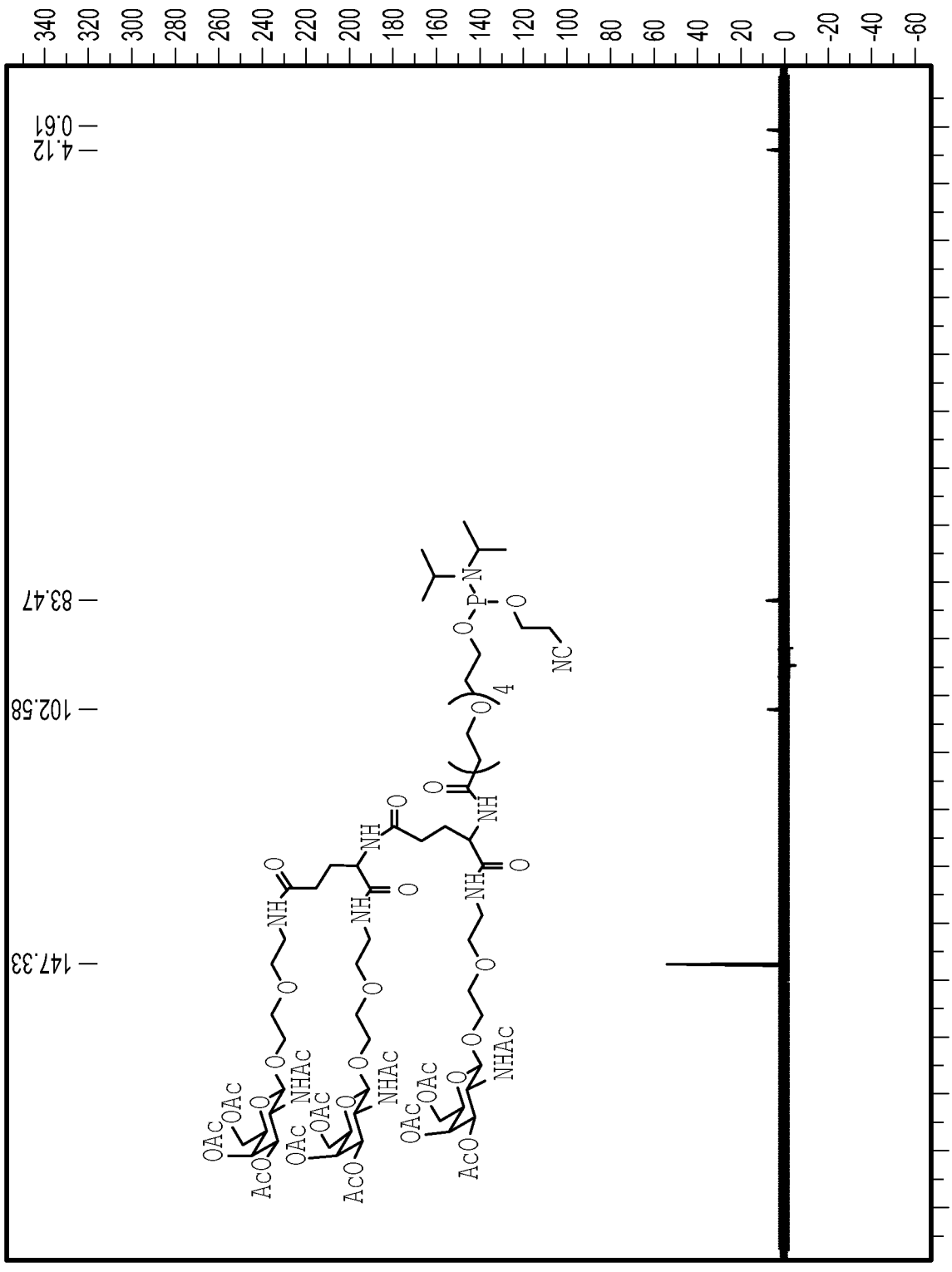

FIG. 9

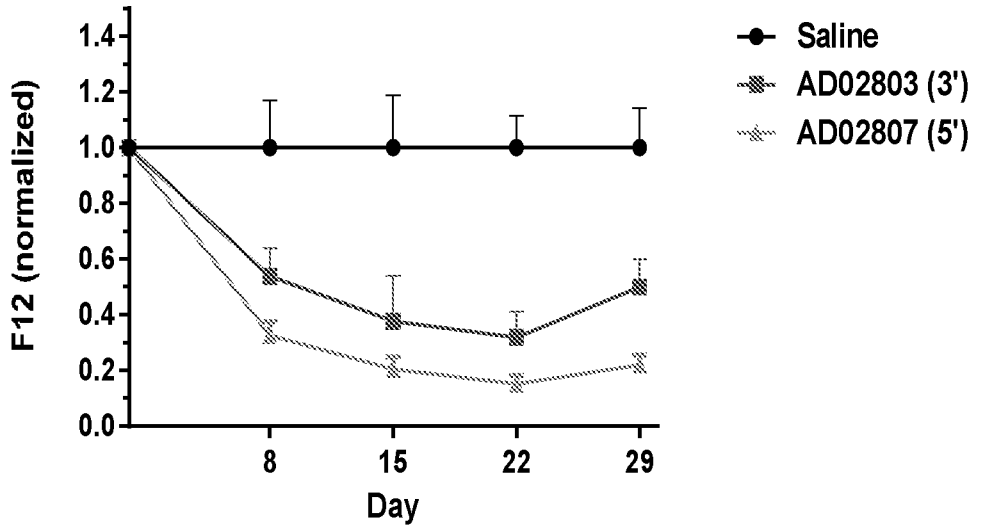
F12 (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
Day
Saline
AD02803 (3')
AD02807 (5')

FIG. 10

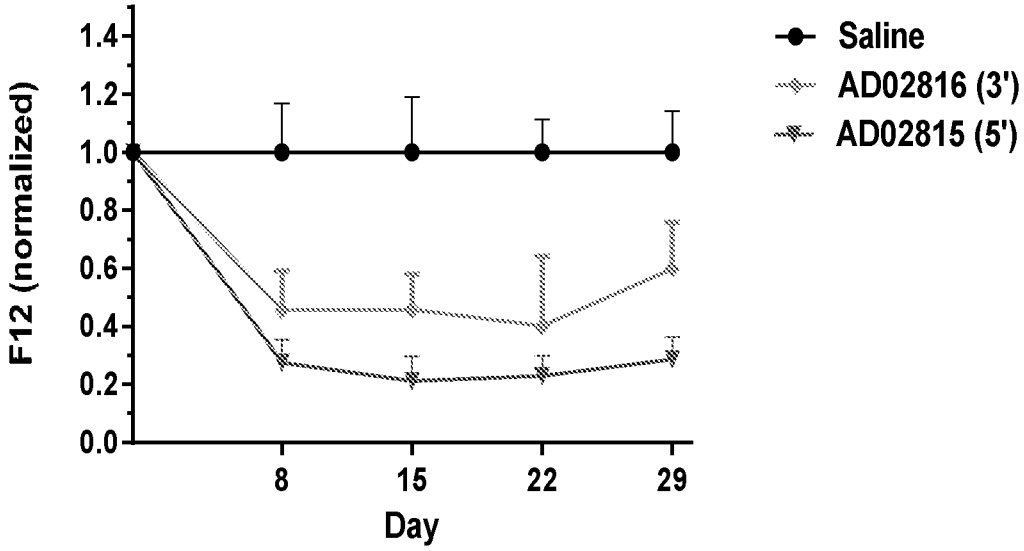
F12 (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
Day
Saline
AD02816 (3')
AD02815 (5')

FIG. 11

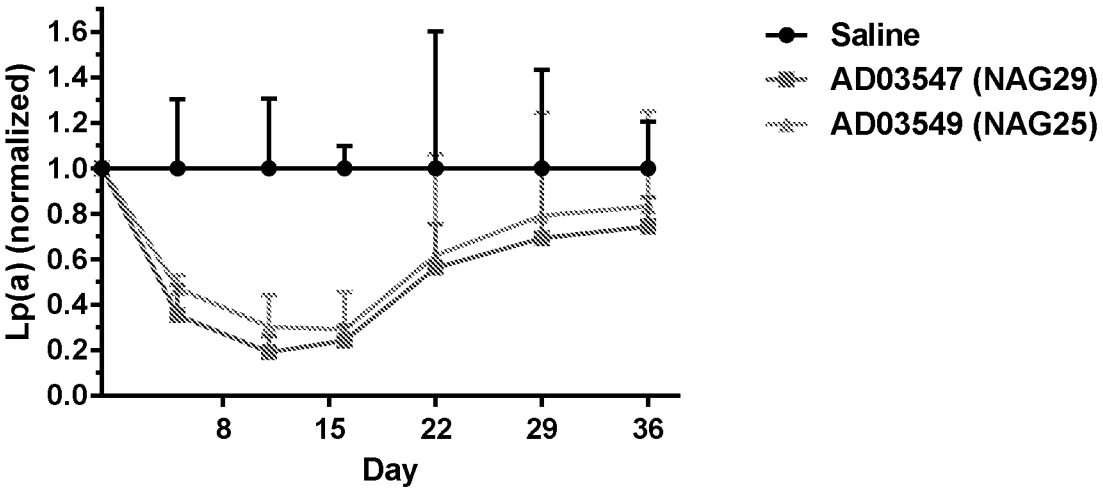
Lp(a) (normalized)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
36
Day
Saline
AD03547 (NAG29)
AD03549 (NAG25)

FIG. 12

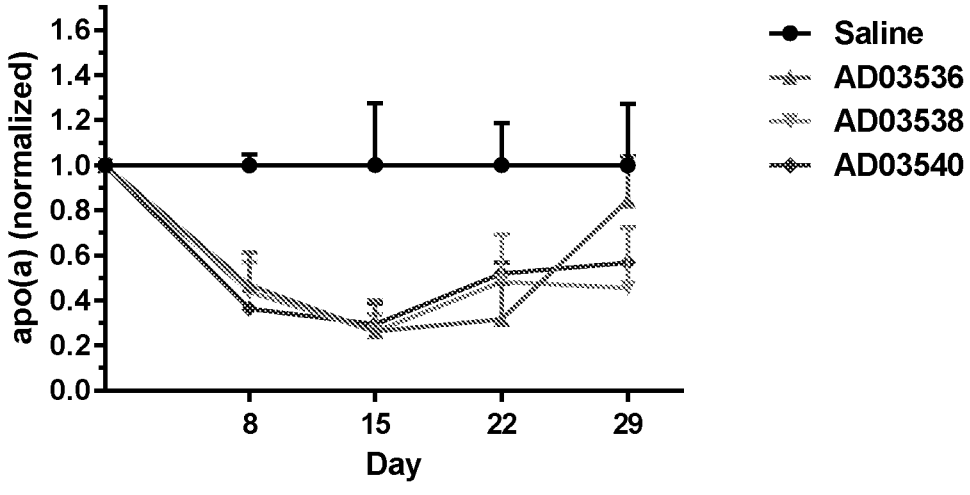
apo(a) (normalized)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
Day
Saline
AD03536
AD03538
AD03540

FIG. 13

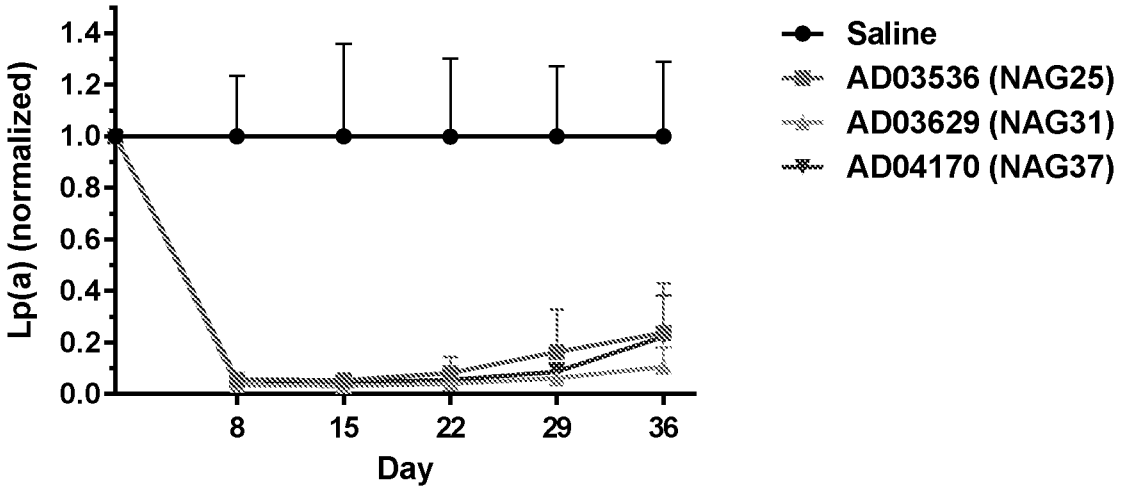
Lp(a) (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
36
Day
Saline
AD03536 (NAG25)
AD03629 (NAG31)
AD04170 (NAG37)

FIG. 14

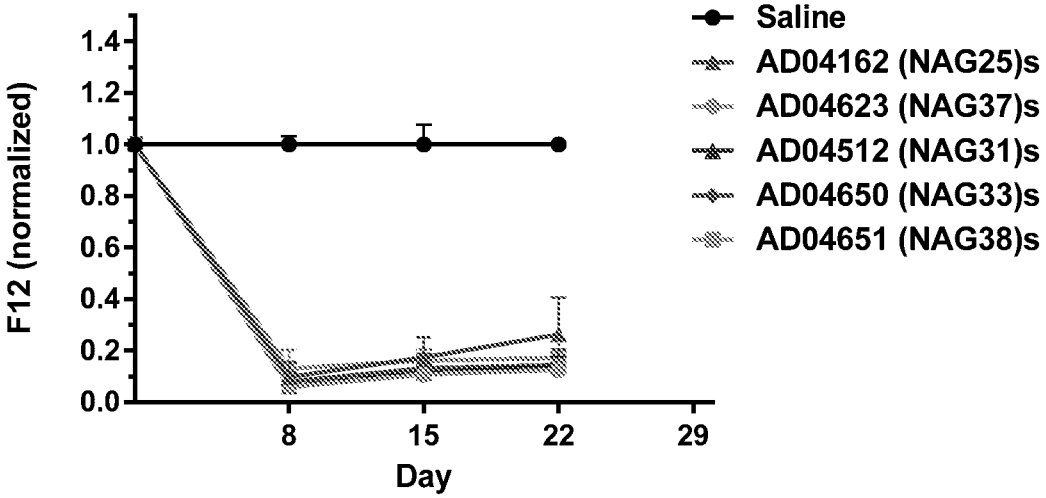
F12 (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
Day
Saline
AD04162 (NAG25)s
AD04623 (NAG37)s
AD04512 (NAG31)s
AD04650 (NAG33)s
AD04651 (NAG38)s

FIG. 15

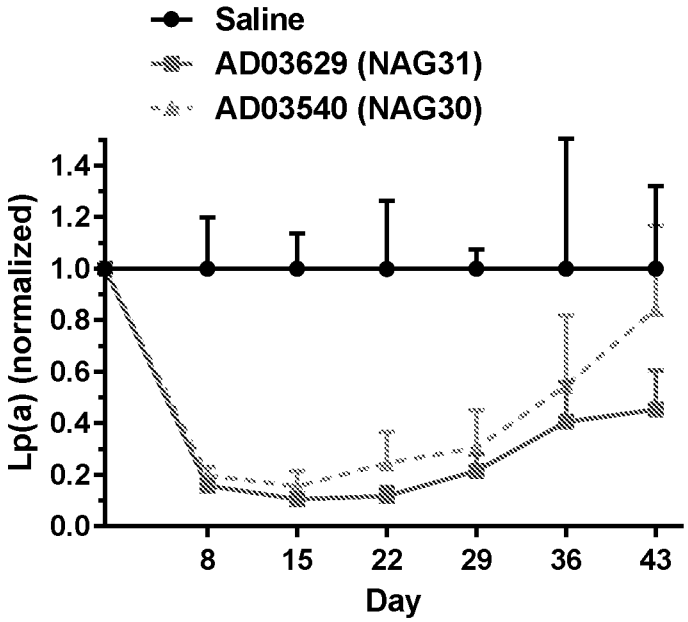
Saline
AD03629 (NAG31)
AD03540 (NAG30)
Lp(a) (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
36
43
Day

FIG. 16

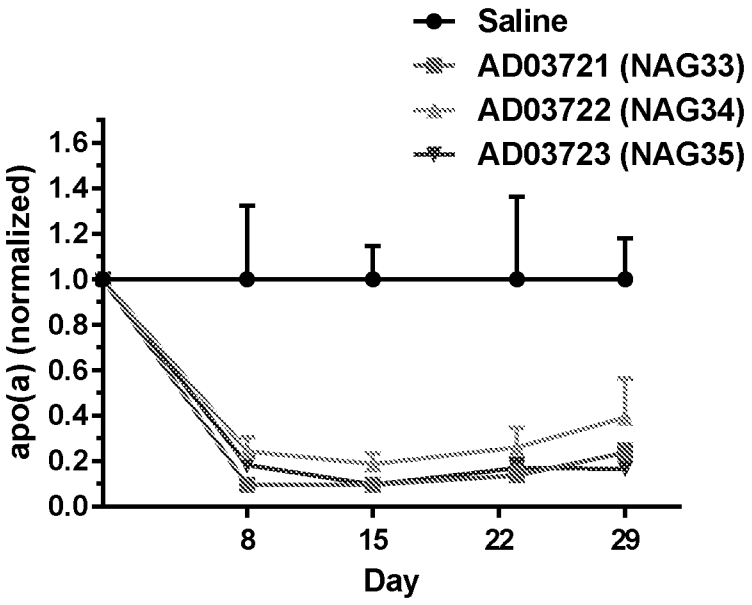
Saline
AD03721 (NAG33)
AD03722 (NAG34)
AD03723 (NAG35)
apo(a) (normalized)
1.6
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
Day

FIG. 17

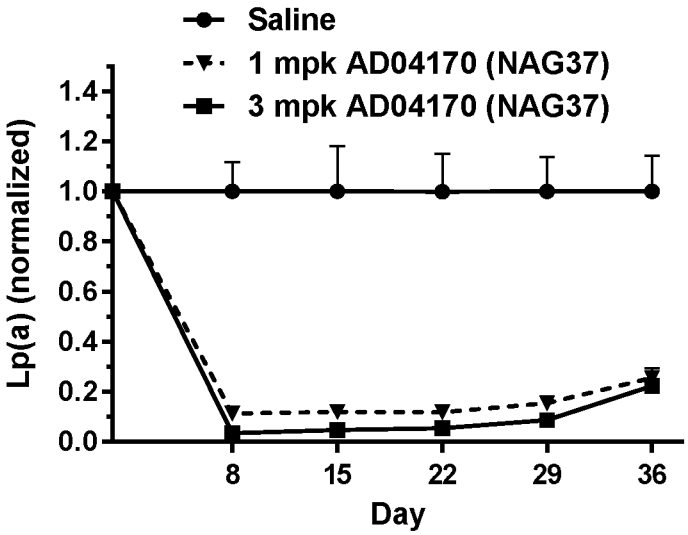
Saline
1 mpk AD04170 (NAG37)
3 mpk AD04170 (NAG37)
Lp(a) (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
36
Day

FIG. 18

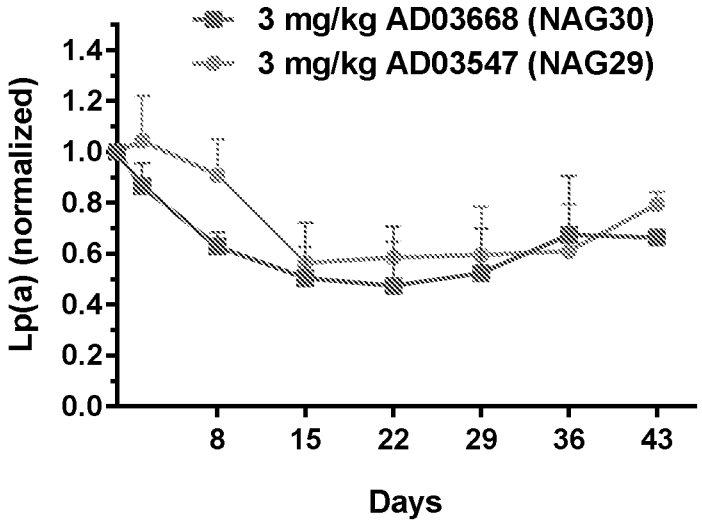
3 mg/kg AD03668 (NAG30)
3 mg/kg AD03547 (NAG29)
Lp(a) (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
36
43
Days

FIG. 19

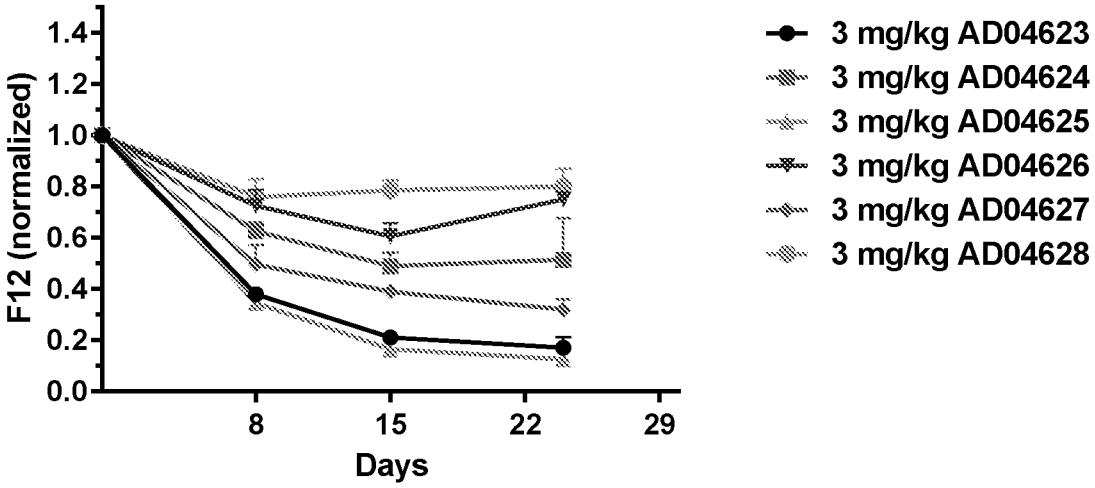
F12 (normalized)
1.4
1.2
1.0
0.8
0.6
0.4
0.2
0.0
8
15
22
29
Days
3 mg/kg AD04623
3 mg/kg AD04624
3 mg/kg AD04625
3 mg/kg AD04626
3 mg/kg AD04627
3 mg/kg AD04628

FIG. 20

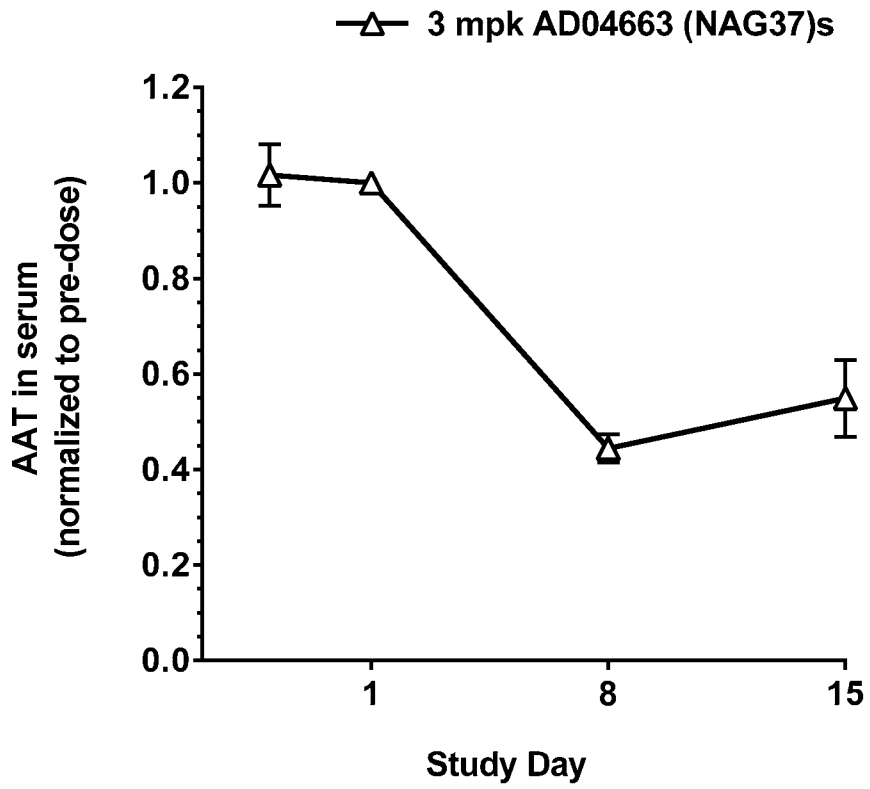
3 mpk AD04663 (NAG37)s
AAT in serum
(normalized to pre-dose)
1.2
1.0
0.8
0.6
0.4
0.2
0.0
1
8
15
Study Day

FIG. 21