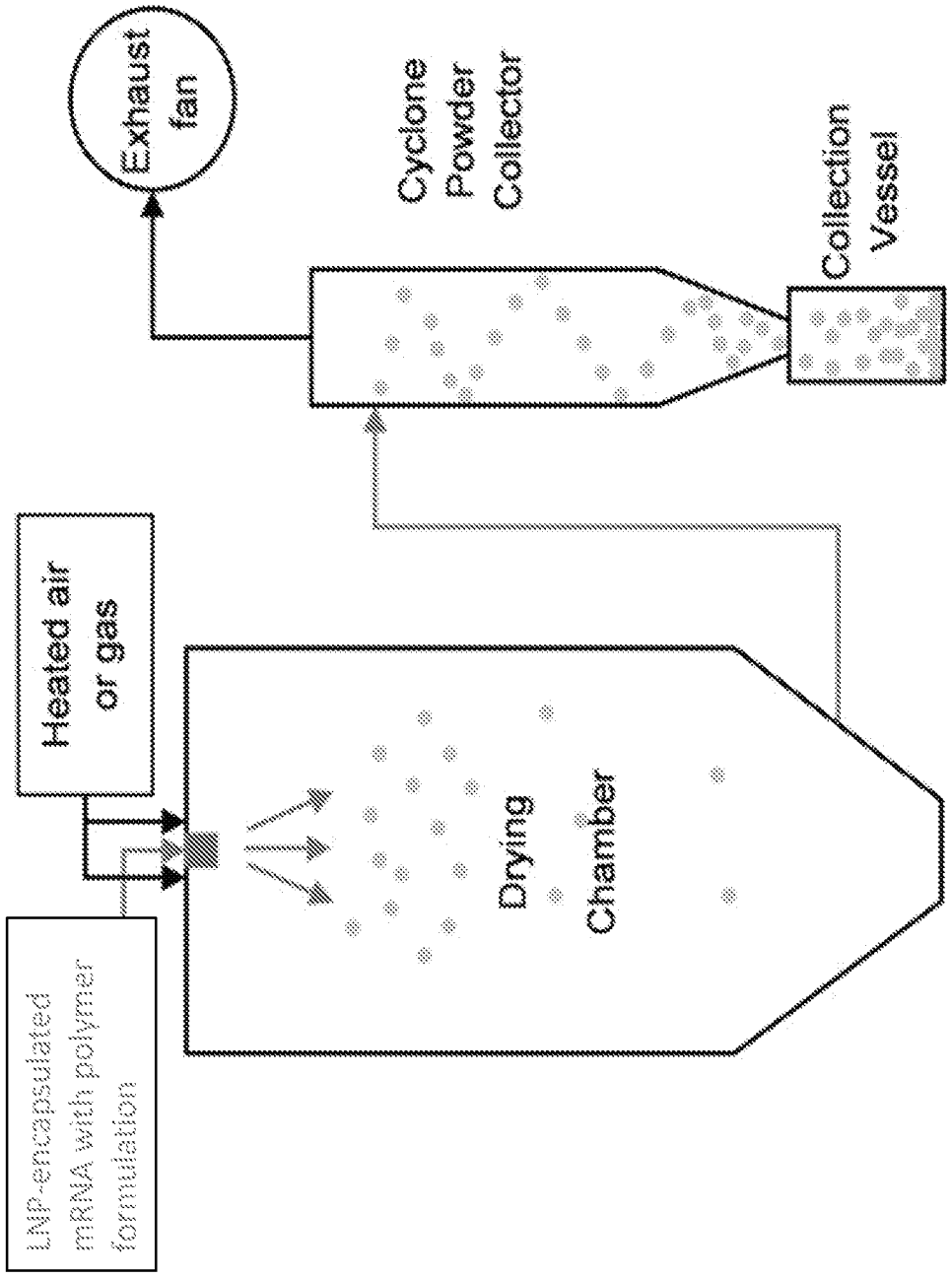

Exhaust fan
Cyclone Powder Collector
Collection Vessel
Heated air or gas
Drying Chamber
LNP-encapsulated mRNA with polymer formulation

FIGURE 1

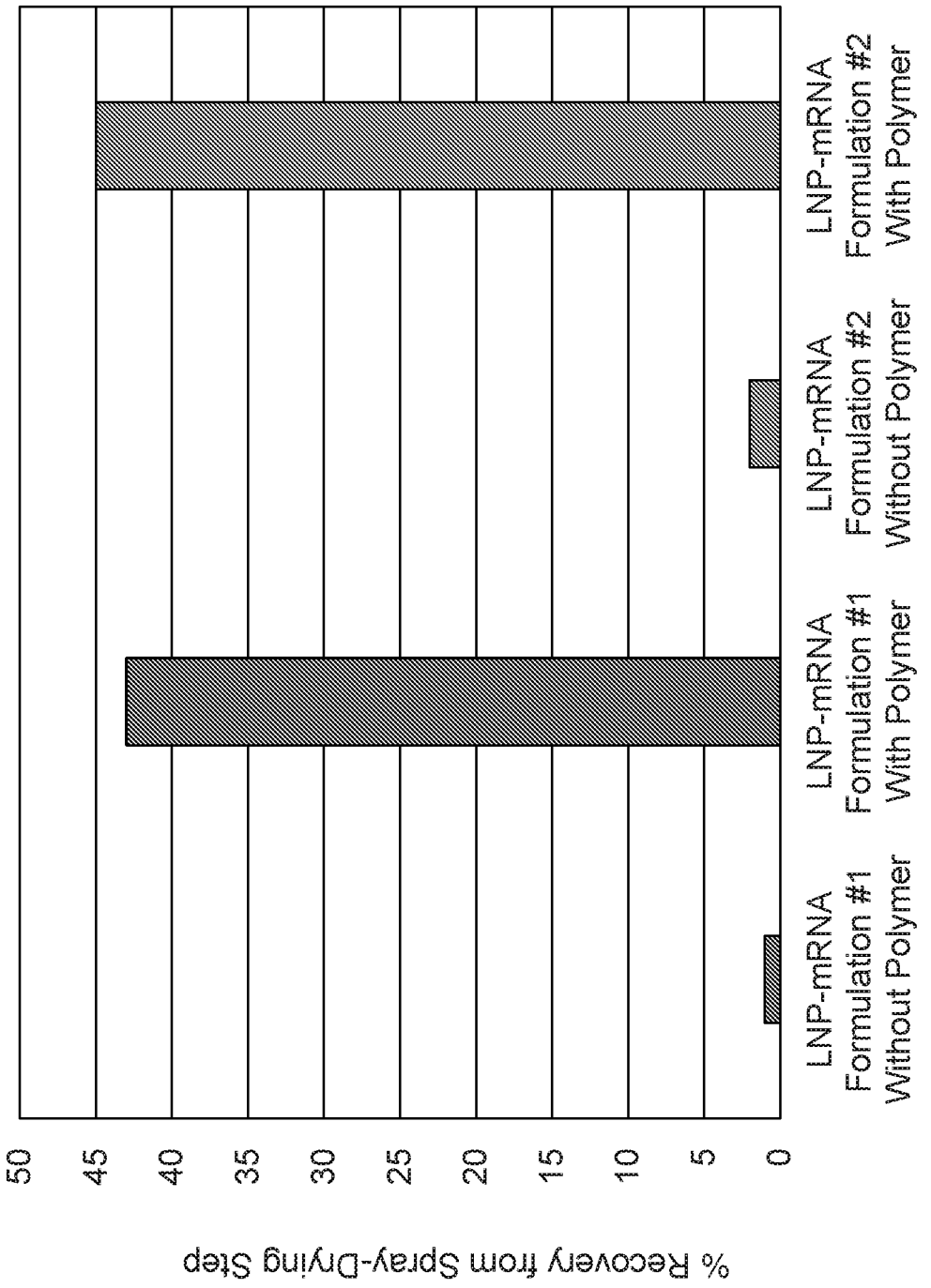

% Recovery from Spray-Drying Step
0
5
10
15
20
25
30
35
40
45
50
LNP-mRNA Formulation #1 Without Polymer
LNP-mRNA Formulation #1 With Polymer
LNP-mRNA Formulation #2 Without Polymer
LNP-mRNA Formulation #2 With Polymer

FIGURE 2

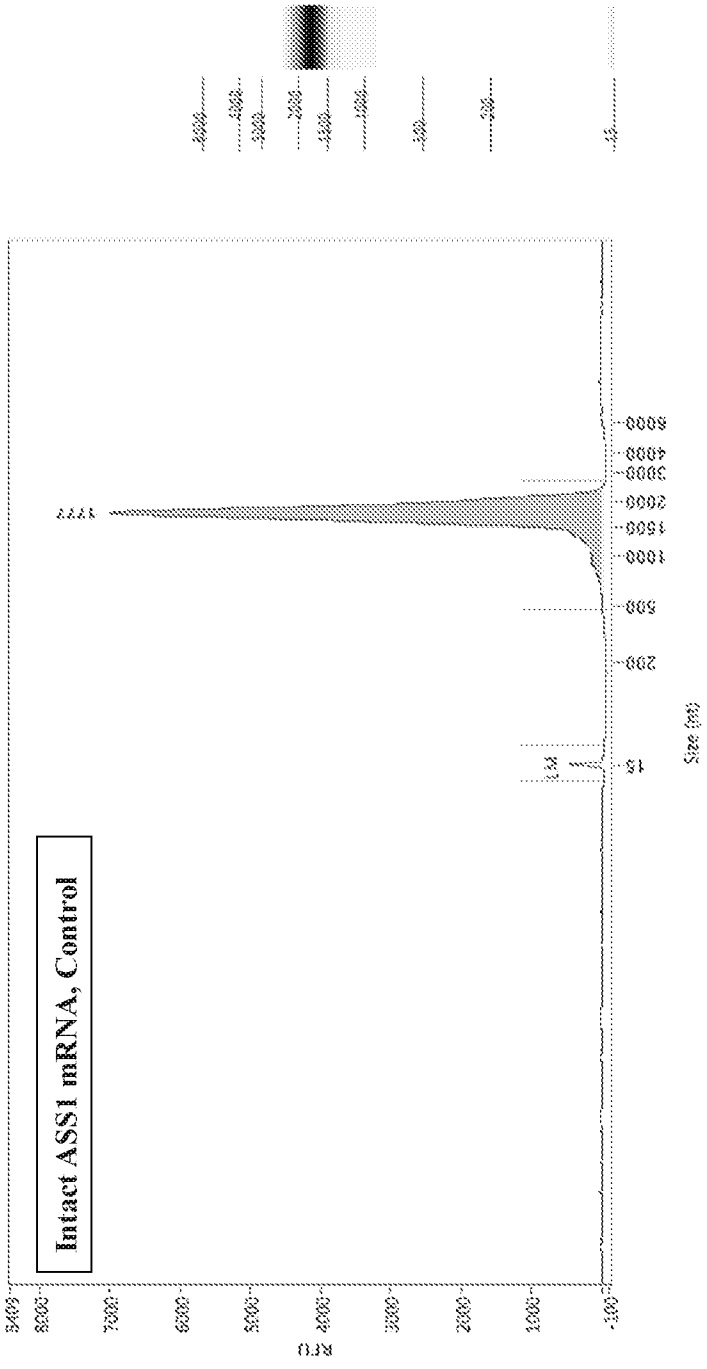

Intact ASS1 mRNA, Control
RFU
Size (nt)
LM
UM
15
200
500
1000
1500
2000
3000
4000
6000

FIGURE 3

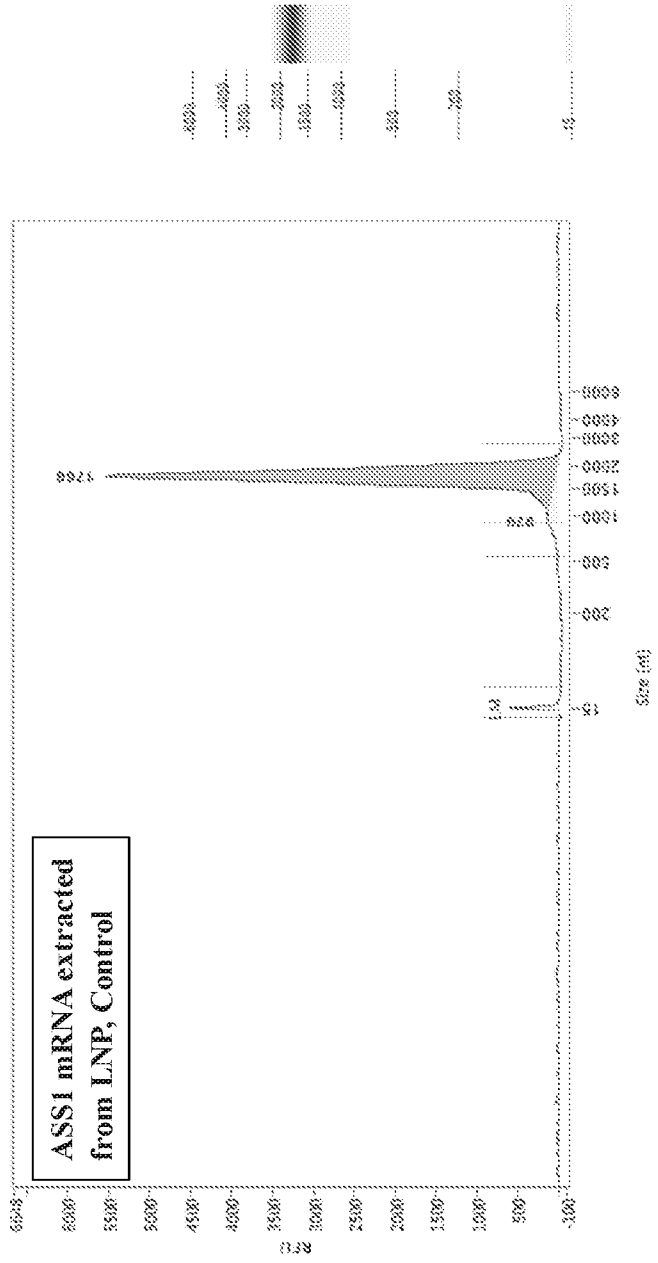


FIGURE 4

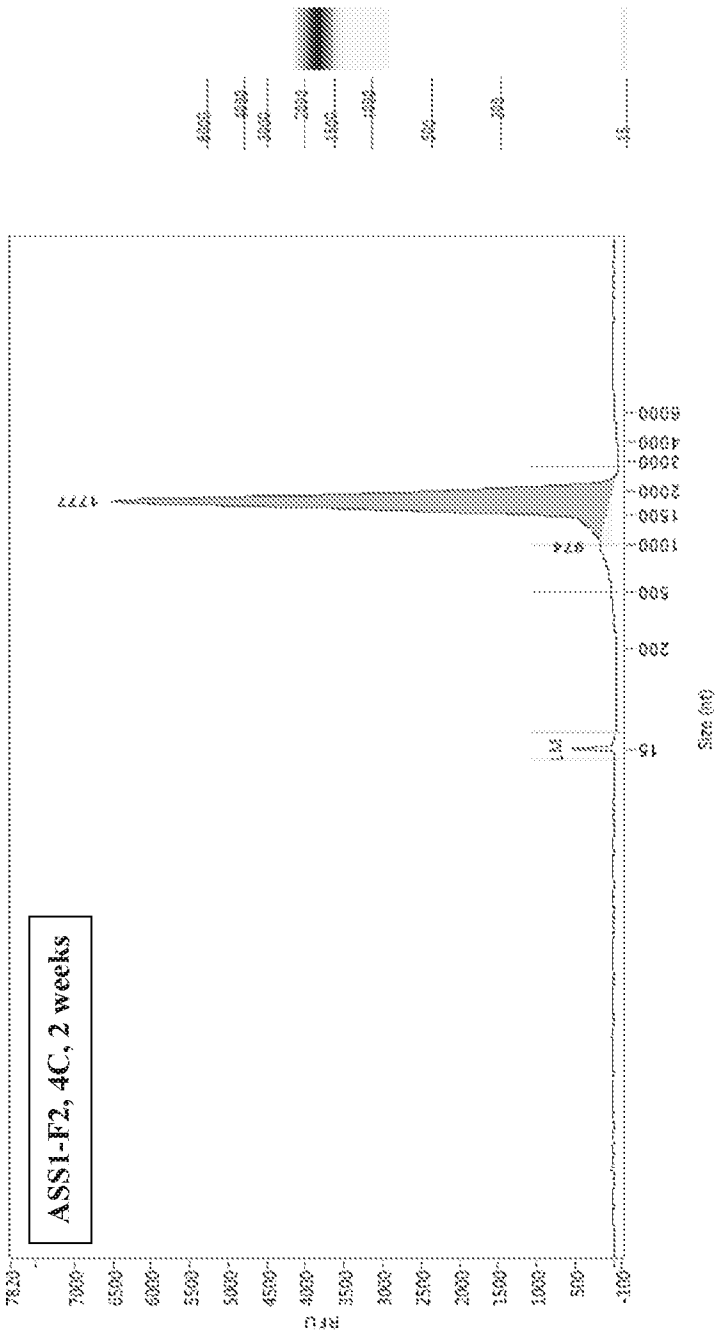


FIGURE 5

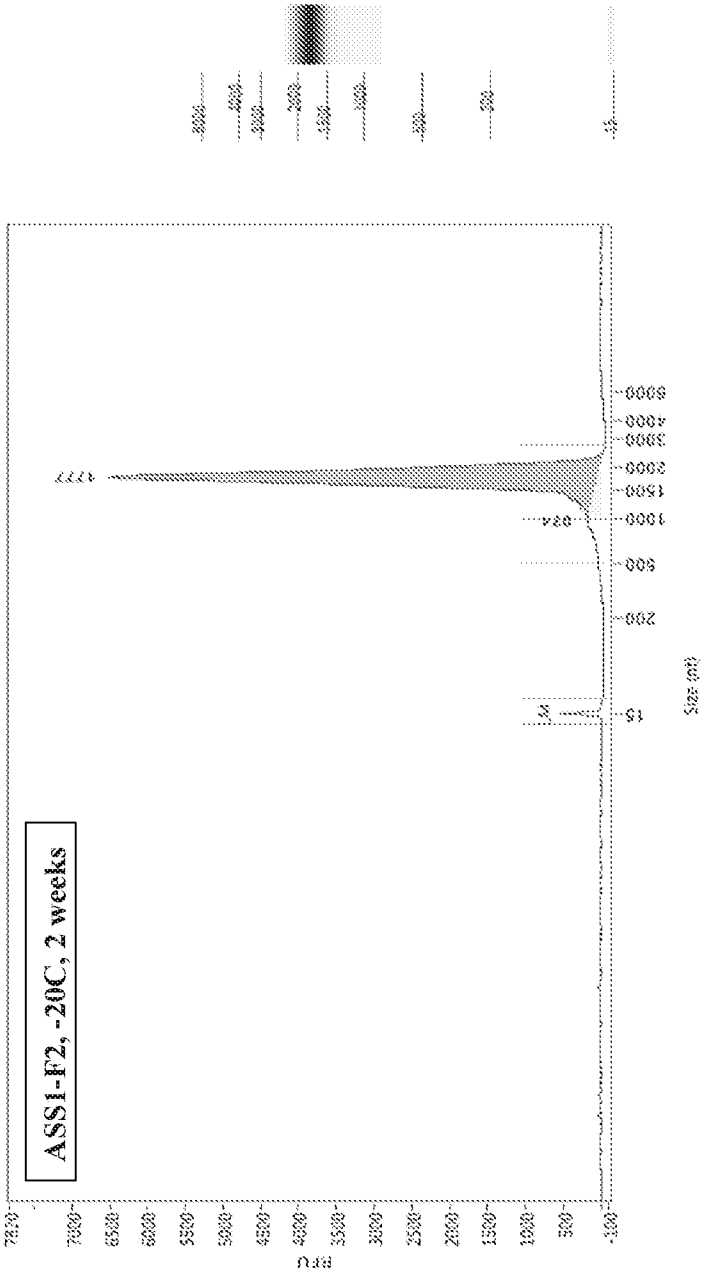

ASS1-F2, -20C, 2 weeks
FU
Size (nt)
1500
2000
1000
600
200
15
8000
4000
3000
2000
1500
1000
600
200
35

FIGURE 6

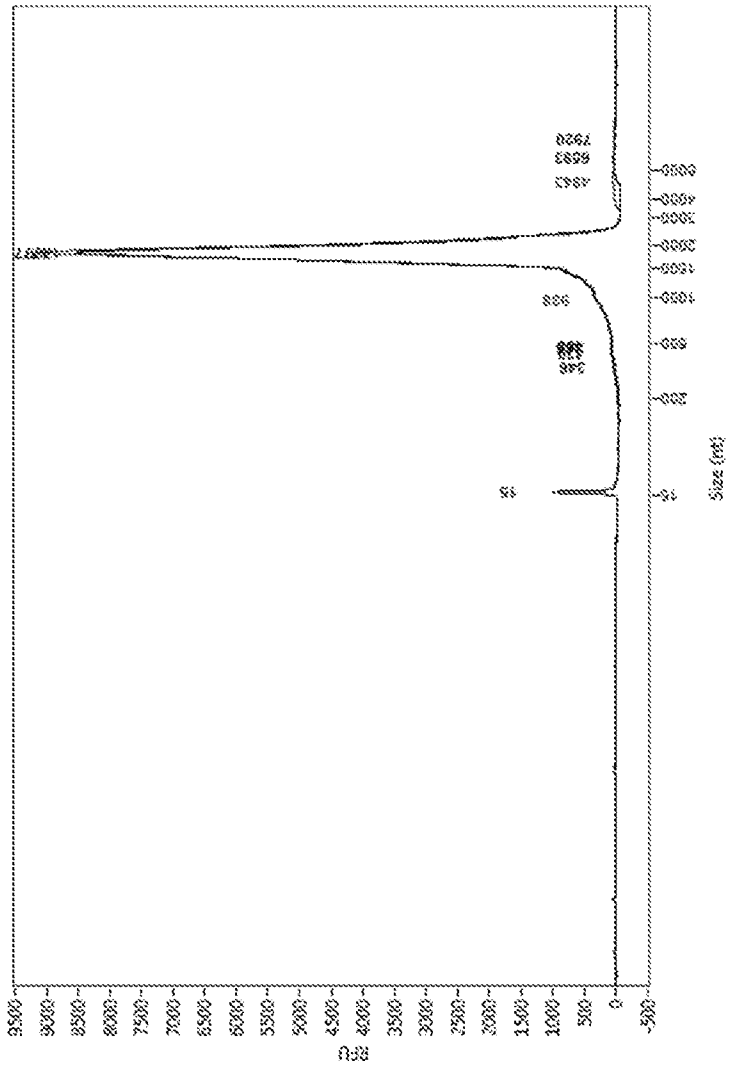


FIGURE 7

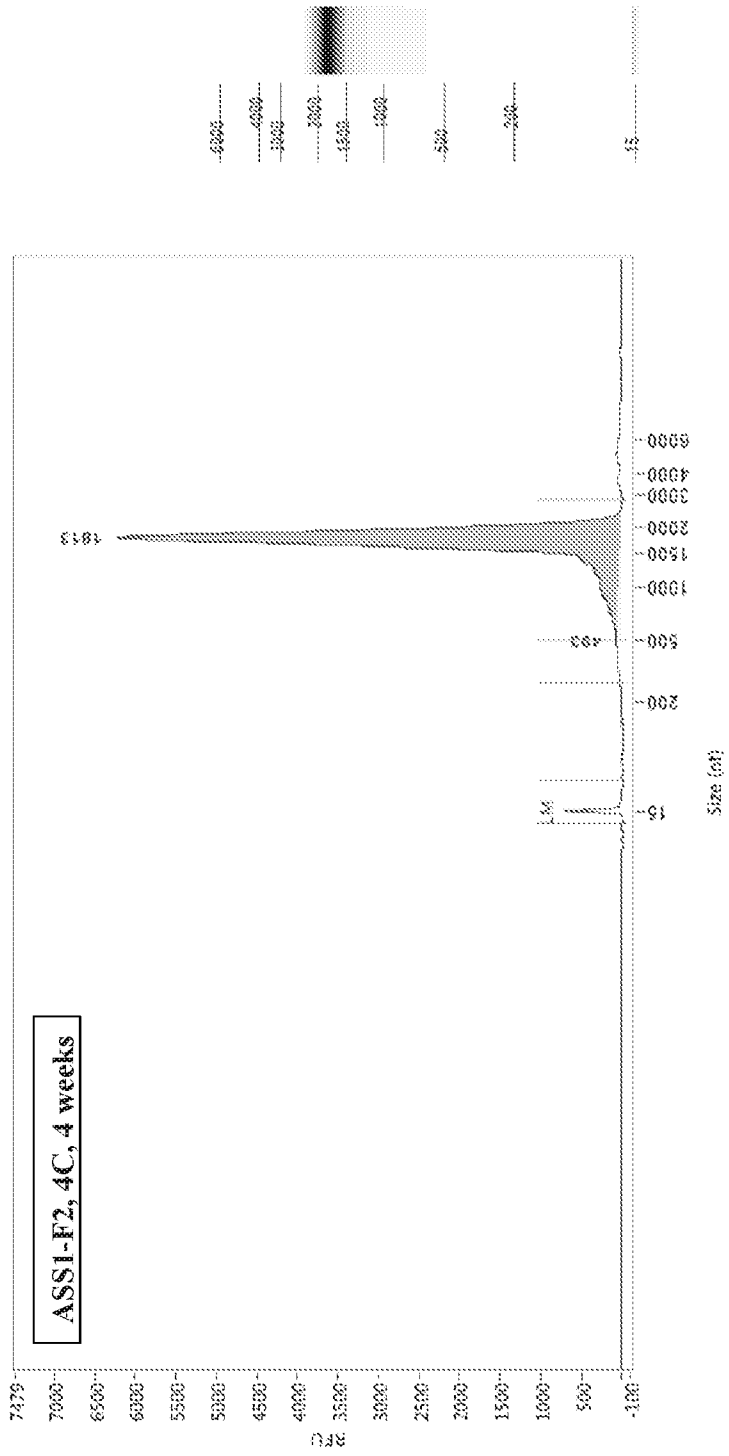


FIGURE 8

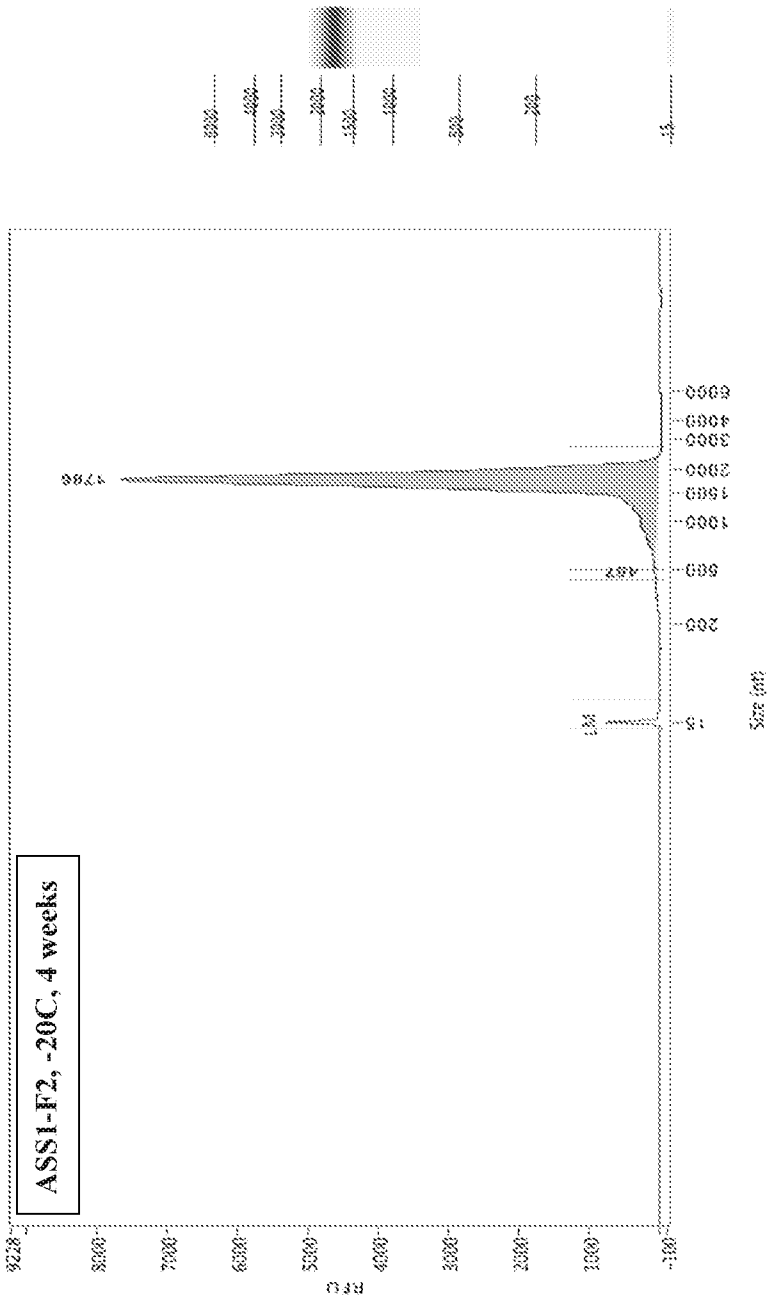

ASS1-F2, -20C, 4 weeks
RFU
Size (nt)
1788
487
136
15
200
600
1000
1500
2000
3000
4000
6000

FIGURE 9

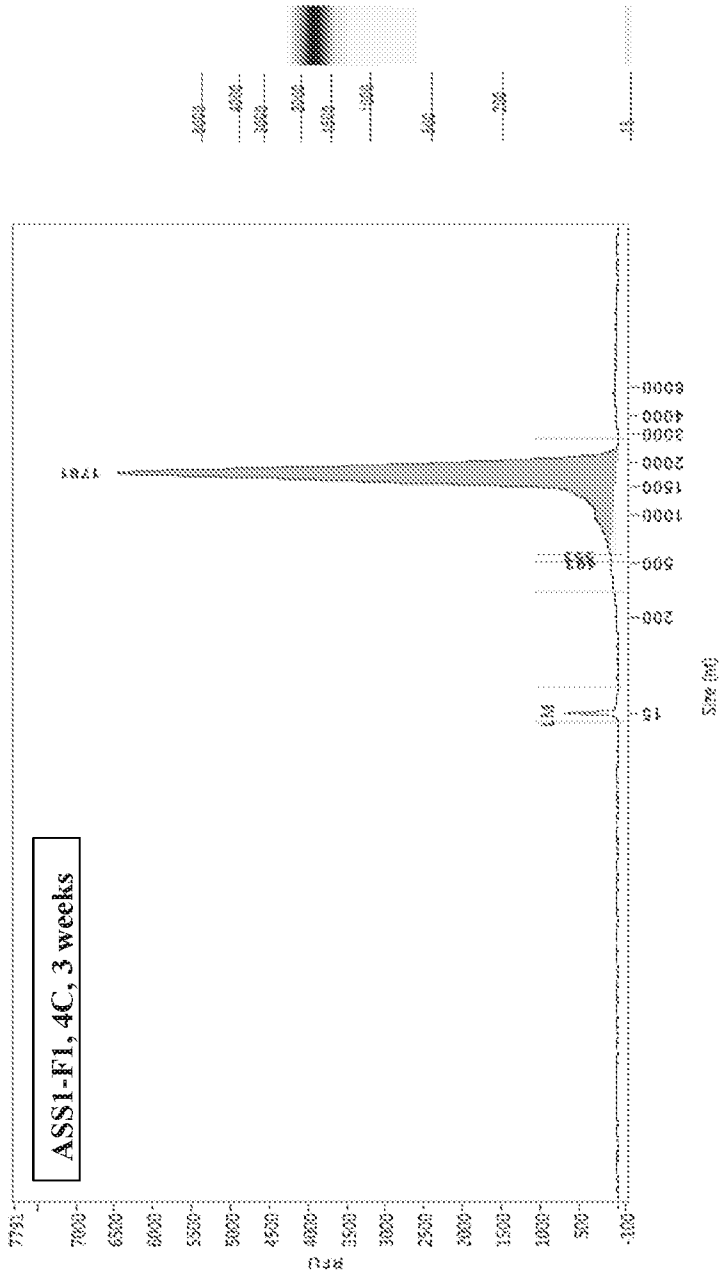


FIGURE 10

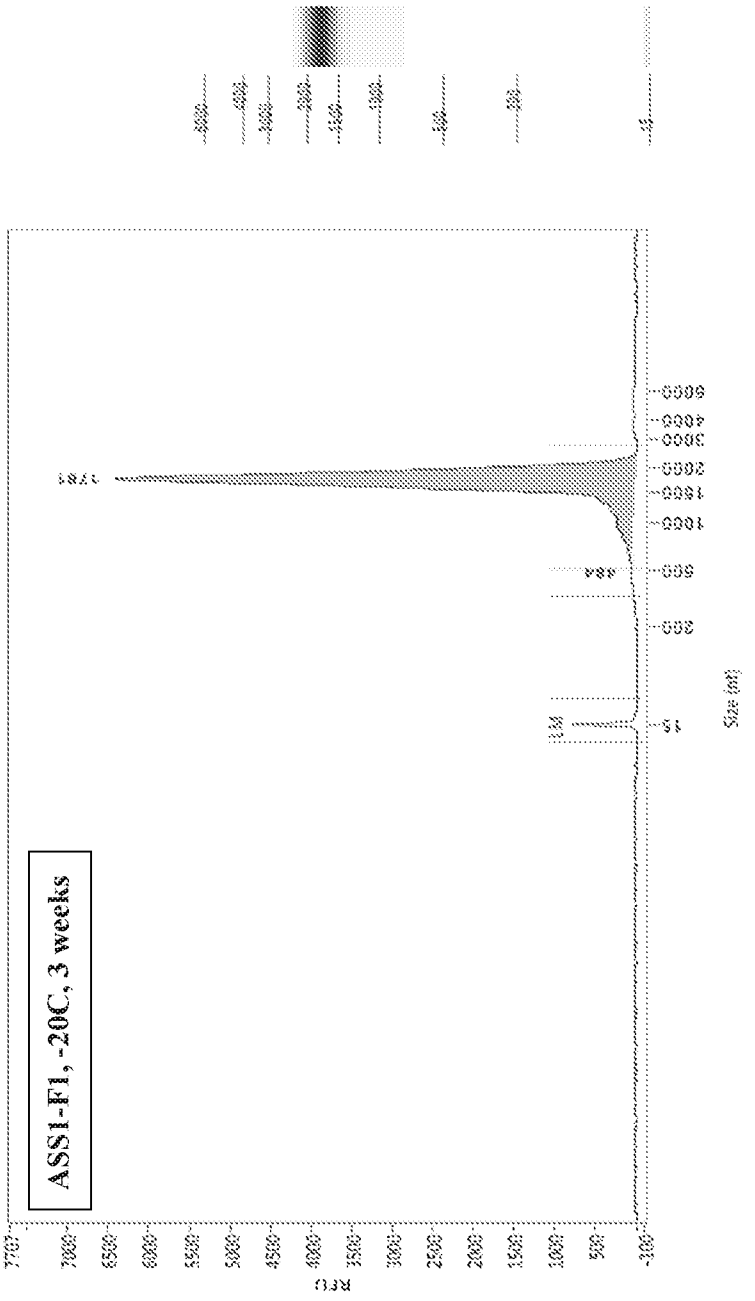

ASS1-F1, -20C, 3 weeks
RFU
Size (nt)
1784
484
151
15
-100
500
1000
1500
2000
2500
3000
3500
4000
4500
5000
5500
6000
6500
7000
7707
200
600
1000
1800
2600
3400
4200
6000

FIGURE 11

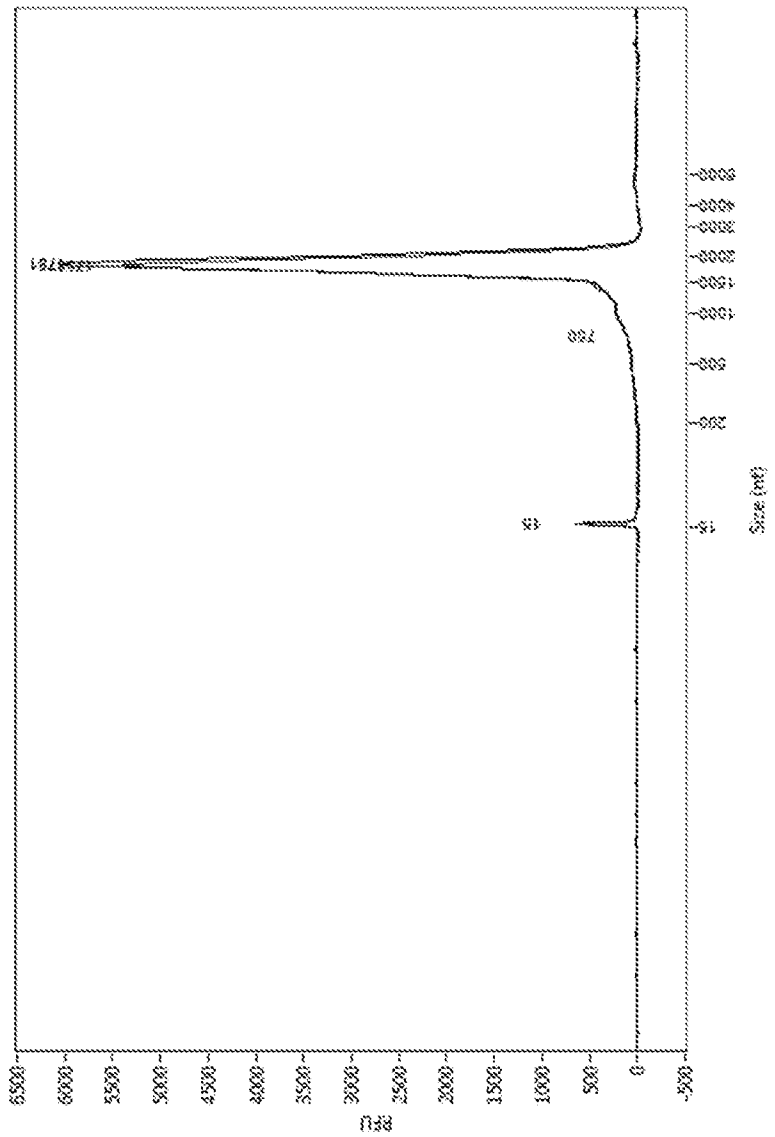

RFU
65000
60000
55000
50000
45000
40000
35000
30000
25000
20000
15000
10000
5000
0
-500
Size (nt)
15
290
4781

FIGURE 12

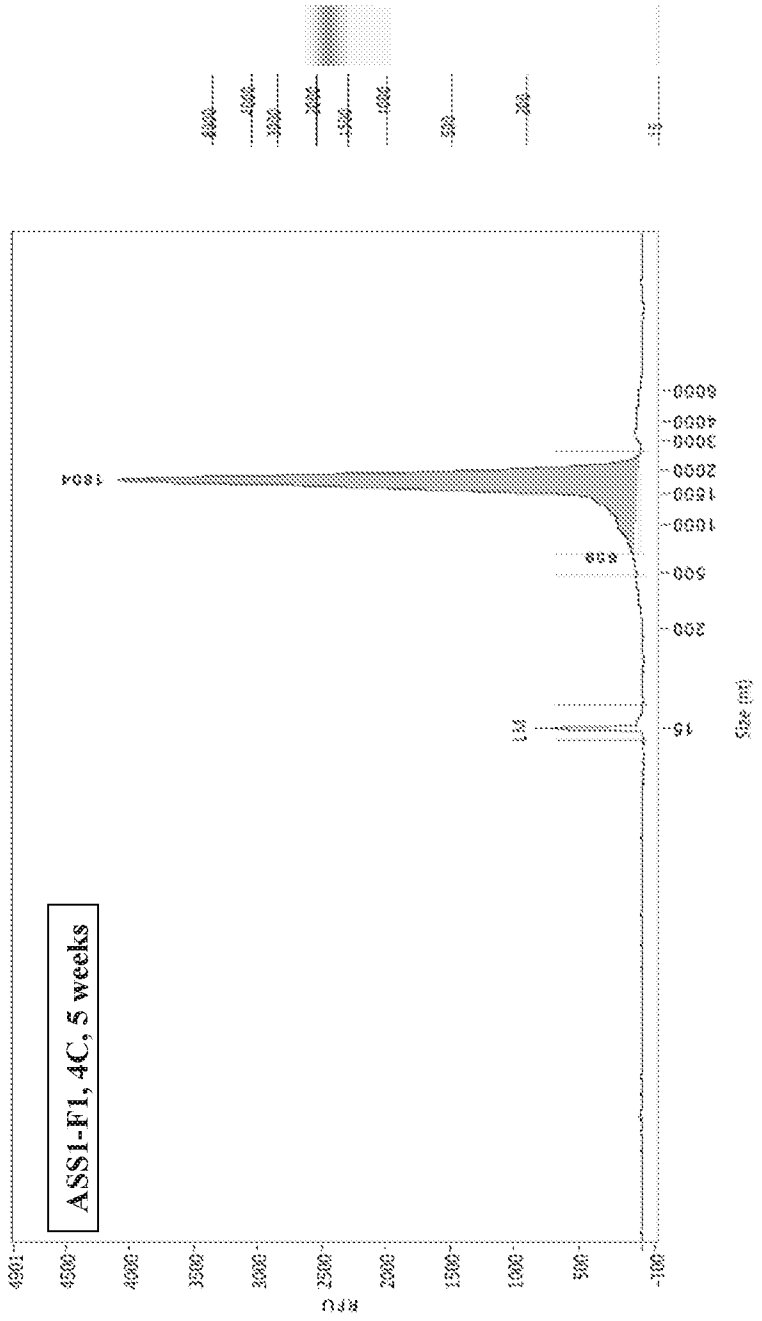


FIGURE 13

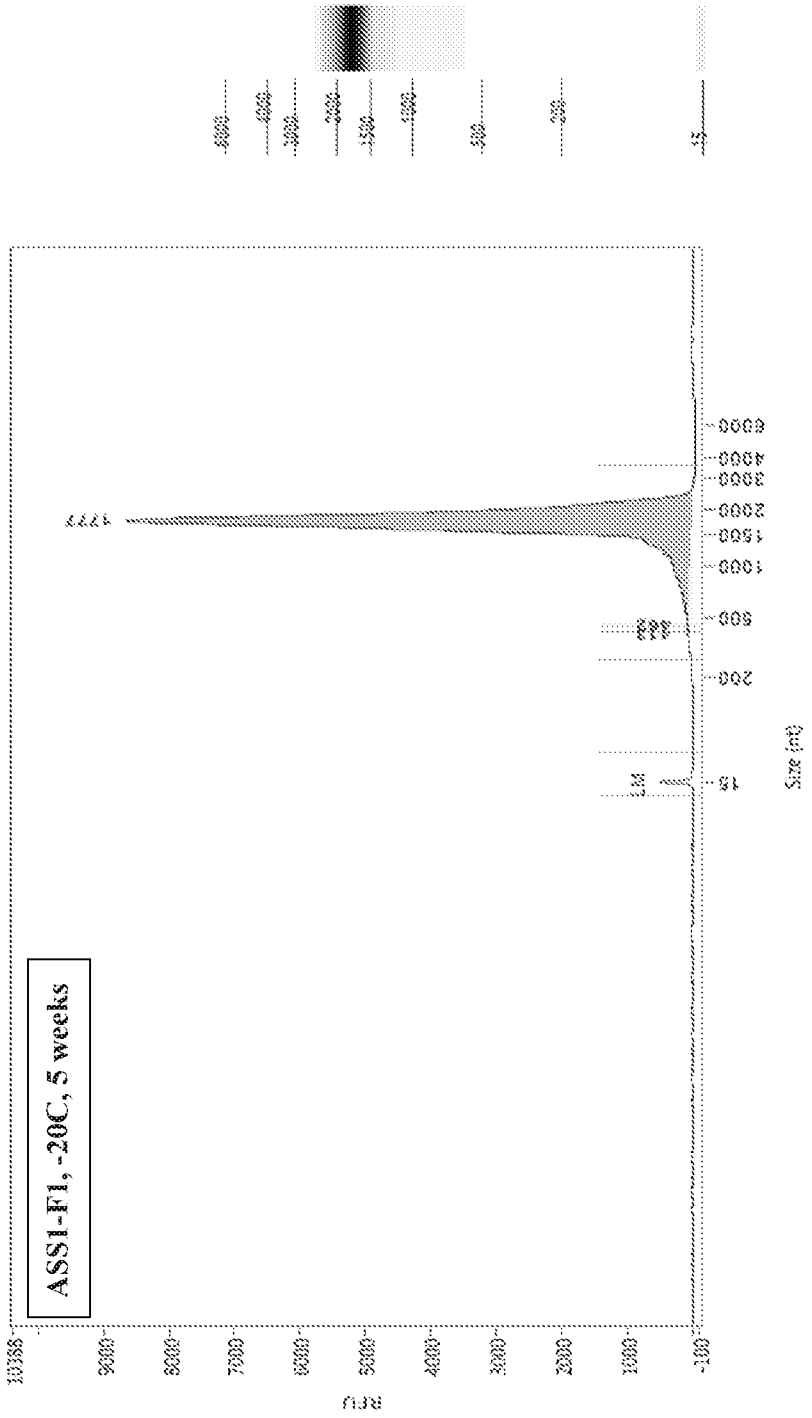


FIGURE 14

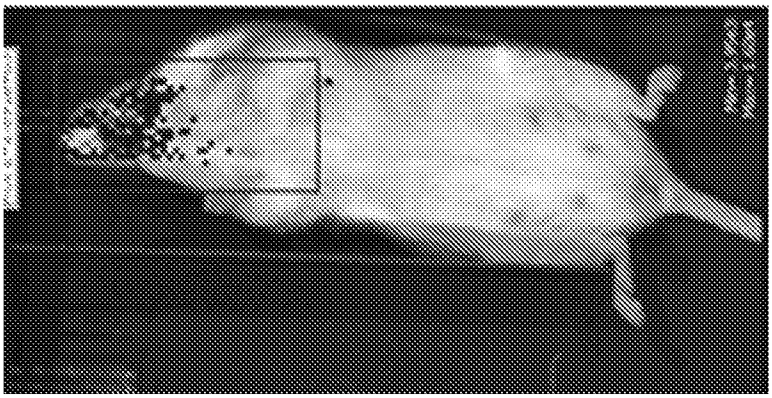


FIGURE 15B

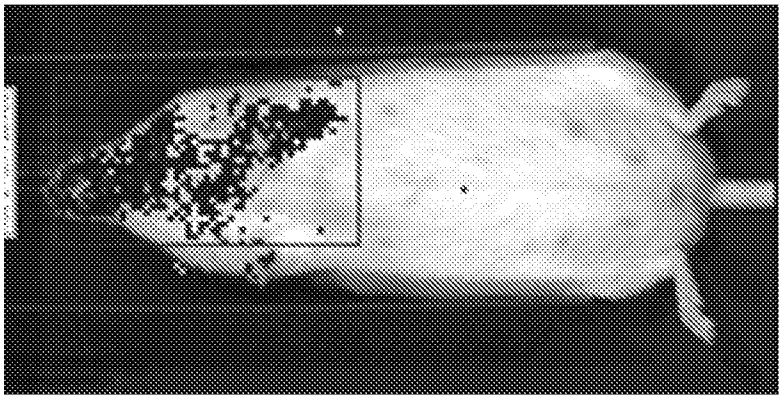


FIGURE 15A

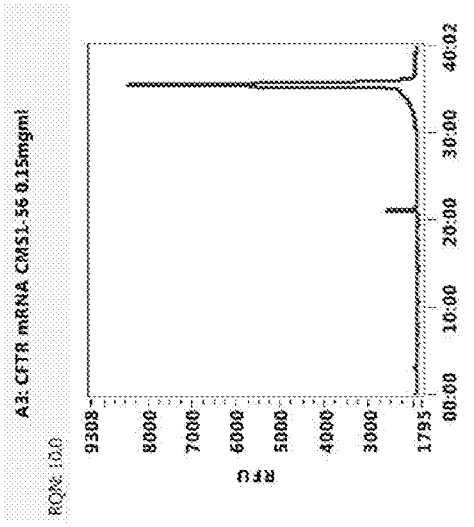


FIGURE 16-A1

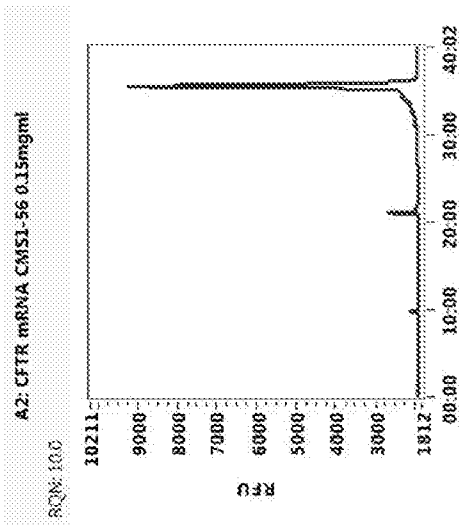


FIGURE 16-A2

FIGURE 16-A3

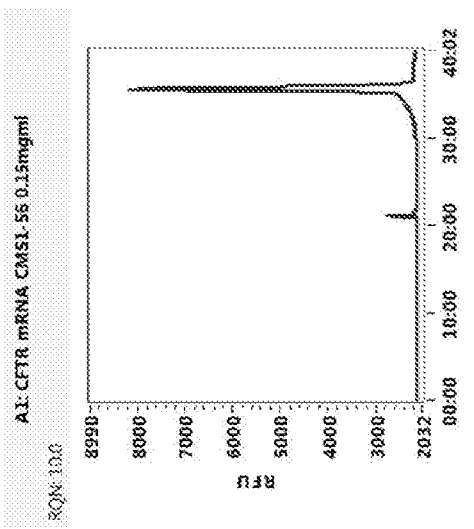


FIGURE 16-A4

FIGURE 16-A5

FIGURE 16-A6