

FIG. 1. Melittin peptide sequences.

Seq ID	Melittin Sequence	Name
1	GIGAILKVLATGLPTLISWIKNKRKQ	<i>Apis florea</i>
2	AIGAILKVLATGLPTLISWIKNKRKQ	G1A
3	CIGAILKVLATGLPTLISWIKNKRKQ	G1C
4	FIGAILKVLATGLPTLISWIKNKRKQ	G1F
5	HIGAILKVLATGLPTLISWIKNKRKQ	G1H
6	IIGAILKVLATGLPTLISWIKNKRKQ	G1I
7	LIGAILKVLATGLPTLISWIKNKRKQ	G1L
8	NleIGAILKVLATGLPTLISWIKNKRKQ	G1Nle
9	VIGAILKVLATGLPTLISWIKNKRKQ	G1V
10	WIGAILKVLATGLPTLISWIKNKRKQ	G1W
11	YIGAILKVLATGLPTLISWIKNKRKQ	G1Y
12	GIGAILKVLACGLPTLISWIKNKRKQ	T11C dMel
13	GIGAILKVLATLLPTLISWIKNKRKQ	G12L
14	GIGAILKVLATWLPTLISWIKNKRKQ	G12W
15	GIGAILKVLATGLPTLISWIKTKRKQ	N22T
16	YIGAILNVLATGLPTLISWIKNKRKQ	G1Y, K7N
17	YIGAILAVLATGLPTLISWIKNKRKQ	G1Y, K7A
18	LIGAILSVLATGLPTLISWIKNKRKQ	G1L, K7S
19	LIGAILRVLATGLPTLISWIKNKRKQ	G1L, K7R
20	LIGAILHVLATGLPTLISWIKNKRKQ	G1L, K7H
21	LIGAILKVLACGLPTLISWIKNKRKQ	G1L, T11C
22	LIGAILKVLATLLPTLISWIKNKRKQ	G1L, G12L
23	YIGAILKVLATGLLTLISWIKNKRKQ	G1Y, P14L
24	LIGAILKVLATGLPCLISWIKNKRKQ	G1L, T15C
25	LIGAILKVLATGLPTLICWIKNKRKQ	G1L, S18C
26	YIGAILKVLATGLPTLISAIKNKRKQ	G1Y, W19A
27	GIGAILKVLACGLPTLISWLKNKRKQ	T11C, I20L
28	YIGAILKVLATGLPTLISWIANKRKQ	G1Y, K21A
29	YIGAILKVLATGLPTLISWIKNARKQ	G1Y, K23A
30	LIGAILKVLATGLPTLISWIKNKAKQ	G1L, R24A
31	YIGAILKVLATGLPTLISWIKNKRAQ	G1Y, K25A
32	YIGAILKVLATGLPTLISWIKNKRKC	G1Y, Q26C
33	LLGAILKVLACGLPTLISWIKNKRKQ	G1L, I2L, T11C
34	LIGALLKVLACGLPTLISWIKNKRKQ	G1L, I5L, T11C
35	YIGAILAVLATGLPTLISWIANKRKQ	G1Y, K7A, K21A
36	YIGAILAVLATGLPTLISWIKNARKQ	G1Y, K7A, K23A
37	LIGAILKVLACGLPTLLSWIKNKRKQ	G1L, T11C, I17L
38	LIGAILKVLACGIPTLICWIKNKRKQ	G1L, T11C, S18C
39	GIGAILKVLACGLPGLIGWIKNKRKQ	T11G, T15G, S18G
40	GIGAILKVLACGLPALIAWIKNKRKQ	T11A, T15A, S18A
41	YIGAILAVLATGLPTLISWIANKRKQ	G1Y, K7A, K21A, K23A

FIG. 1

Seq ID	Melittin Sequence	Name
42	YIAAILKVLAAALATLISWIKNKRKQ	G1Y, G3A, T11A, G12A, P14A
43	LLGALLKVLATGLPTLLSWLKNKRKQ	G1L, I2L, I5L, I17L, I20L
44	LNleGANleLKVLATGLPTLNleSWNleKNKRKQ	G1L, I2Nle, I5Nle, I17Nle, I20Nle
45	LVGAVLKVLATGLPTLVSWVKNKRKQ	G1L, I2V, I5V, I17V, I20V
46	GLGALLKVLACGLPTLLSWLKNKRKQ	I2L, I5L, T11C, I17L, I20L
47	GNleGANleLKVLACGLPTLNleSWNleKNKRKQ	I2Nle, I5Nle, T11C, I17Nle, I20Nle
48	CEDDLLLGAILKVLATGLPTLISWIKNKRKQ	CEDDL-Mel G1L, I2L
49	CLVVLIVVAILKVLATGLPTLISWIKNKRKQ	CLVVL-Mel G1L, I2V, G3V
50	GIGAVLKVLTTGLPALISWIKRKRQ	<i>Apis mellifera</i>
51	CLIGAILKVLATGLPTLISWIKNKRKQ	C-Mel G1L
52	CNleIGAILKVLATGLPTLISWIKNKRKQ	C-Mel G1Nle
53	GLIGAILKVLATGLPTLISWIKNKRKQ	G-Mel G1L
54	LLIGAILKVLATGLPTLISWIKNKRKQ	L-Mel G1L
55	KLKLIGAILKVLATGLPTLISWIKNKRKQ	KLK-Mel G1L
56	KLKYIGAILKVLATGLPTLISWIKNKRKQ	KLK-Mel G1Y
57	CKKLIGAILKVLATGLPTLISWIKNKRKQ	CKLK-Mel G1L
58	CKLKNleIGAILKVLATGLPTLISWIKNKRKQ	CKLK-Mel G1Nle
59	GKLKLIGAILKVLATGLPTLISWIKNKRKQ	GKLK-Mel G1L
60	CPANLIGAILKVLATGLPTLISWIKNKRKQ	CPAN-dMel G1L
61	DEPLRAIGAILKVLATGLPTLISWIKNKRKQ	DEPLR-Mel G1A
62	GIGAILKVLATGLPTLISWIKNKRKQC	Mel-Cys
63	LIGAILKVLATGLPTLISWIKNKRKQC	G1L Mel-Cys
64	NleIGAILKVLATGLPTLISWIKNKRKQC	G1Nle Mel-C
65	LIGAILKVLATGLPTLISWIKNKRKQKLKC	G1L Mel-KLKC
66	YIGAILKVLATGLPTLISWIKNKRKQPLGIAGQC	G1Y Mel-PLGIAGQC
67	LIGAILKVLATGLPTLISWIKNKRKQKKKKK	G1L Mel-KKKKK
68	YIGAILKVLATGLPTLISWIKNKRKQGFKGC	G1Y Mel-GFKGC
69	CFKLIGAILKVLATGLPTLISWIKNKRKQC	CFK-G1L Mel-C
70	FGAILKVLATGLPTLISWIKNKRKQ	G1F, I2Δ
71	LIGAILKVLATGLPTLISWIKNK	G1L Mel (1-23)
72	LIGAVLKVLTTGLPALISWIK	G1L, L5V, A10T, T15A Mel (1-23)
73	LIGAVLKVLTTGLPALISWIKGE	G1L, L5V, A10T, T15A, N22G, K23E Mel (1-23)
74	QKRKNKIWSILTPLGTALVKLIAGIL	G1L retroMel
75	KLKQKRKNKIWSILTPLGTALVKLIAGIL	G1L retroMel-KLK
76	GIGAVLKVLTTGLPALISWISRKKRQ	I5V, A10T, T15A, N22R, R24K, K25R Mel-Q

FIG. 1 cont.

Seq ID	Melittin Sequence	Name
77	GIGARLKVLTTGLPR ISWIKRKRQQ	I5R, A10T, T15R, L16Δ, N22R, K25Q
78	GIGAILKVLSTGLPALISWIKRKRQE	A10S, T15A, N22R, K25Q, Q26E
79	GIGAVLKVLTTGLPALIGWIKRKRQQ	I5V, A10T, T15A, S18G, N22R, K25Q
80	GIGAVLKVLATGLPALISWIKRKRQQ	I5V, T15A, N22R, K25Q
81	GIGAVLKVLSTGLPALISWIKRKRQQ	I5V, A10S, T15A, N22R, K25Q
82	GIGAILRVLATGLPTLISWIKNRKQ	K7R
83	GIGAILKVLATGLPTLISWIKRKRQ	N22R
84	GIGAILKVLATGLPTLISWIKKKKQ	N22K, R24K, K25Q
85	GIGAILKVLATGLPTLISWIKNRKQGSKKKK	Mel-GSKKKK
86	KKGIGAILKVLATGLPTLISWIKNRKQ	KK-Mel
87	GIGAILEVLATGLPTLISWIKNRKQ	K7E Mel
88	GIGAVLKVLTTGLPALISWIKRR	I5V, T15A, N22R, 25-26Δ
89	GIGAVLKVLTTGLPALISWIKR	I5V, T15A, N22R, 23-26Δ
90	CIGAVLKVLTTGLPALISWIKRKRQQ	G1C, I5L, T15A, N22R
91	QQRKRKIWSILAPLGTTLVKLVAGIG	I5V, A10T, T15A, N22R retroMel
92	QQRKRKIWSILAPLGTTLVKLVAGIC	G1C, I5V, A10T, T15A, N22R retroMel
93	QQKKKKIWSILAPLGTTLVKLVAGIC	G1C, I5V, A10T, T15A, N22R, R24K retroMel
94	QKRKNKIWSILTPLGTALVKLIAGIG	Q25K reverse Mel
95	QQRKRKIWSILAALGTTLVKLVAGIC	G1C, I5V, A10T, P14A, T15A, N22R retroMel

dMel = Melittin peptide having D-form amino acids

FIG. 1 cont.

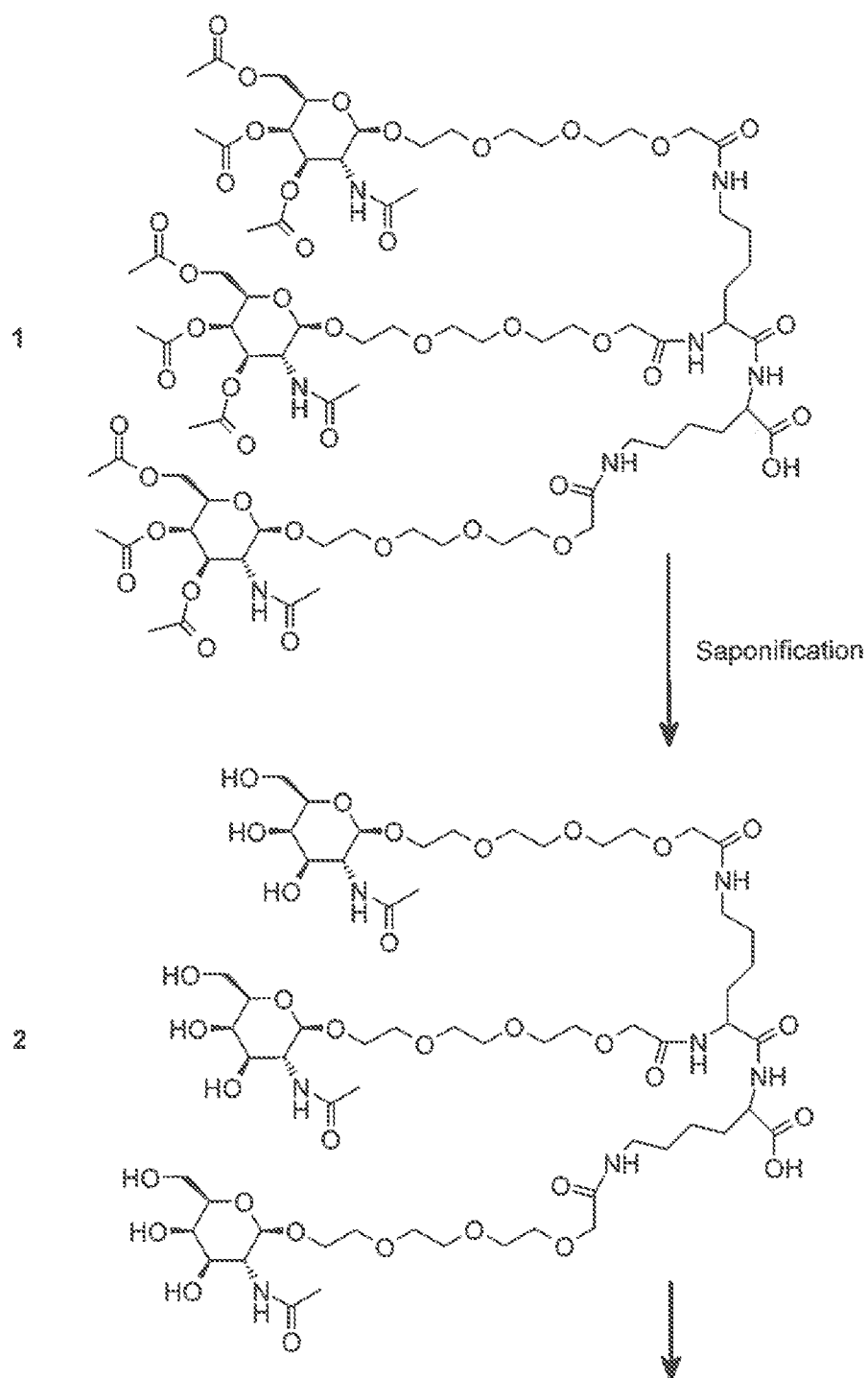


FIG. 2

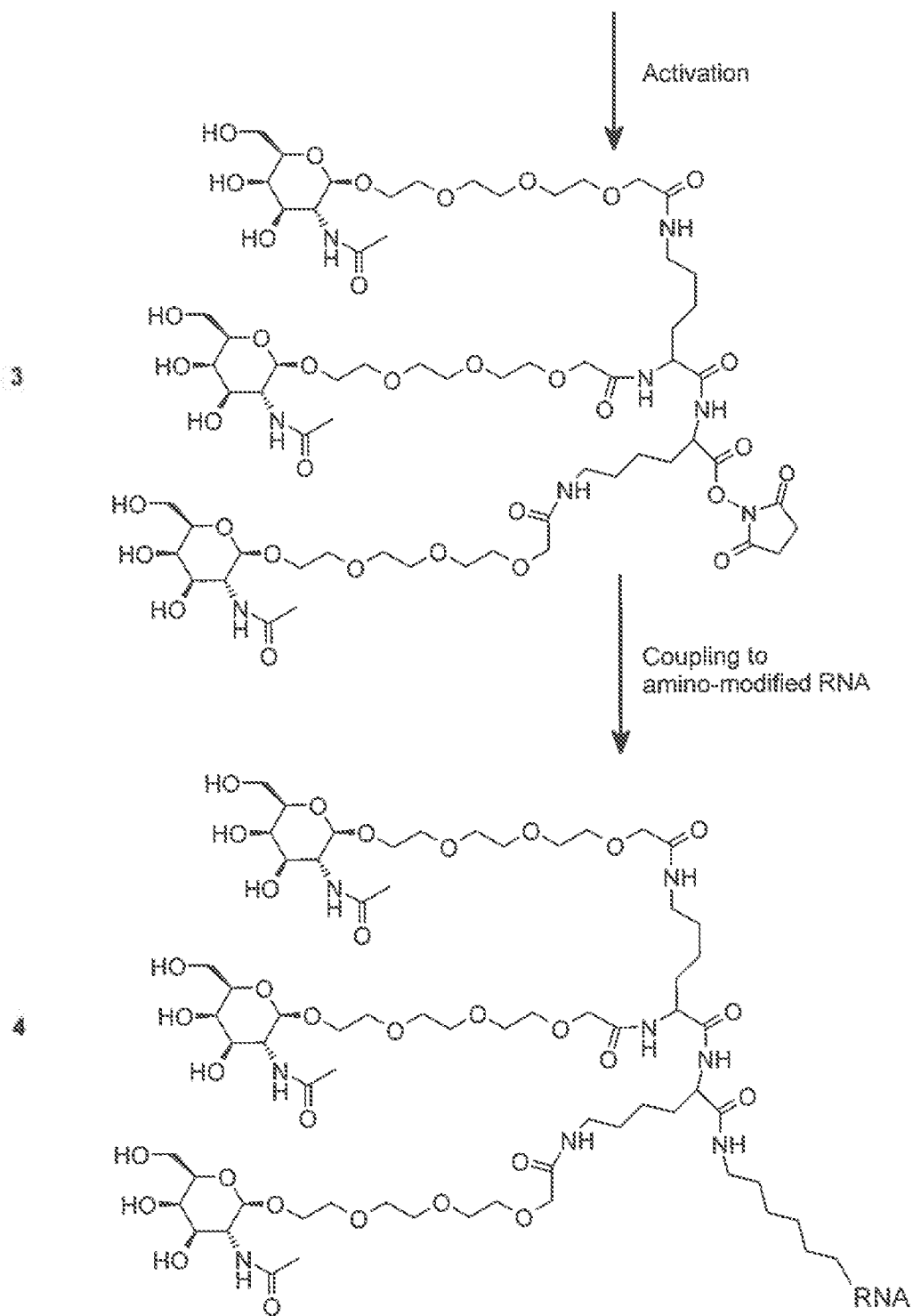


FIG. 2 cont.

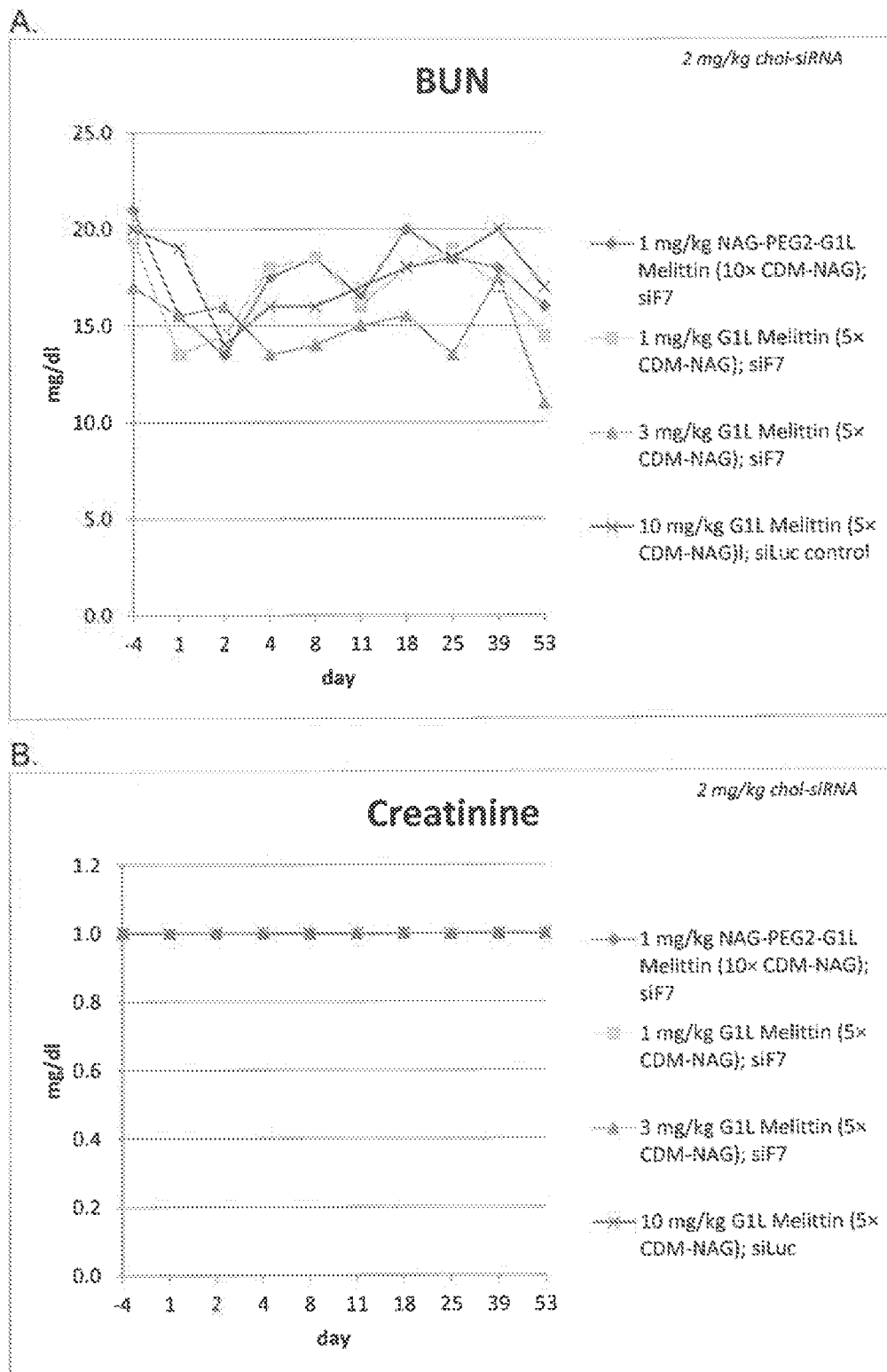


FIG. 3

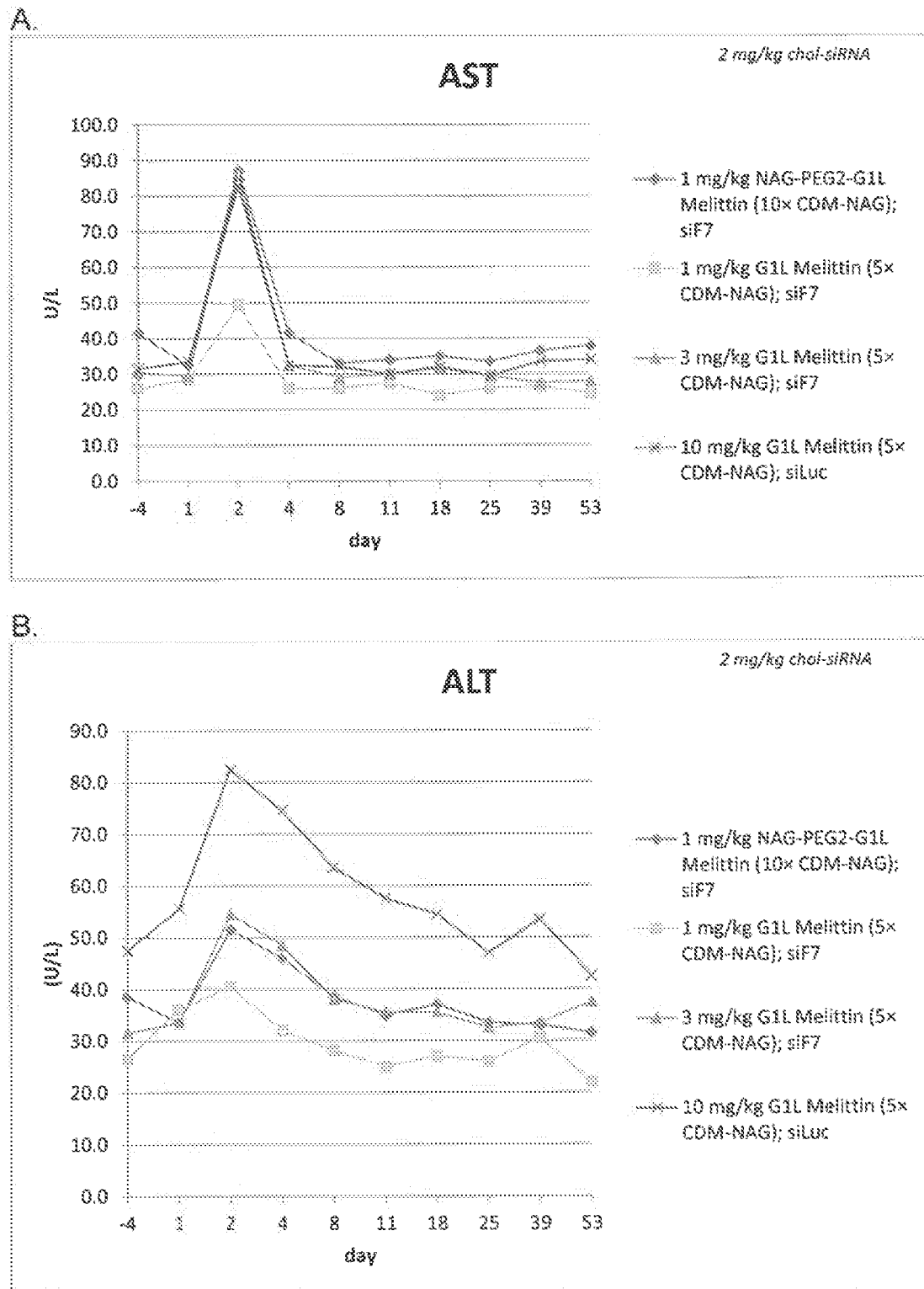


FIG. 4

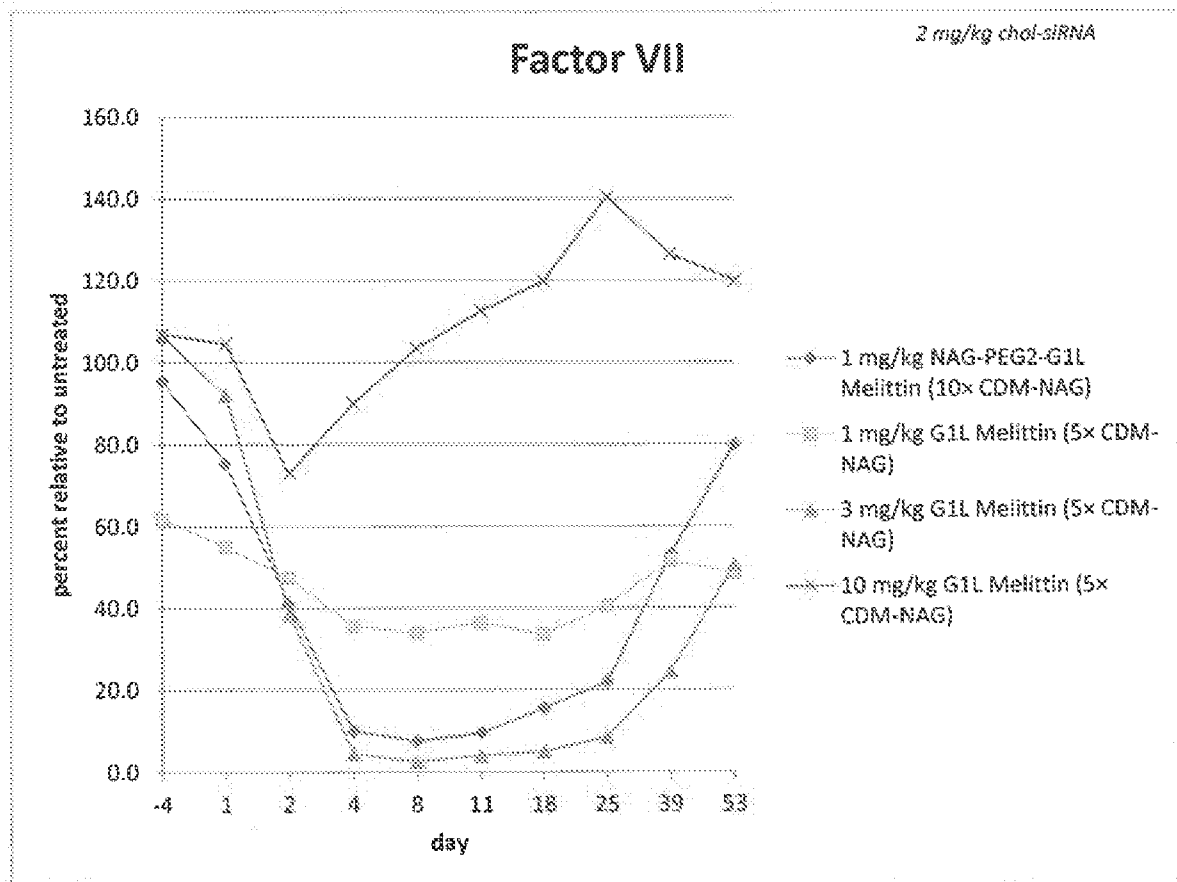


FIG. 5