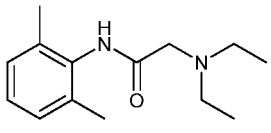
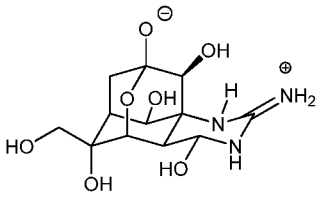
Figure 1A

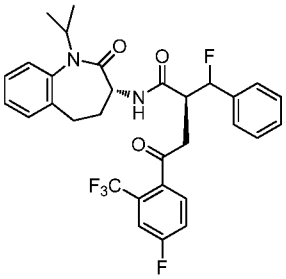


Lidocaine



Tetrodotoxin

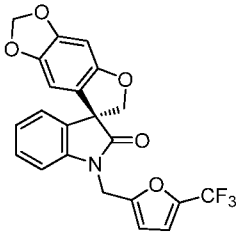
Figure 1B



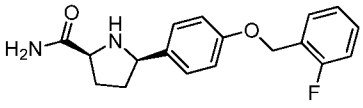
hNav1.7 IC_{50} = 0.55 μM

hNav1.5 IC_{50} = 4.30 μM

Figure 1C



Funapide



Raxatrigine

PF-05089771

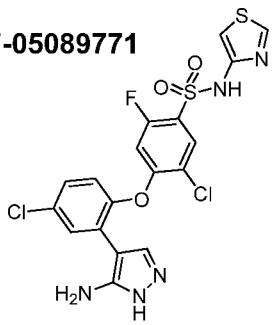


Figure 2A

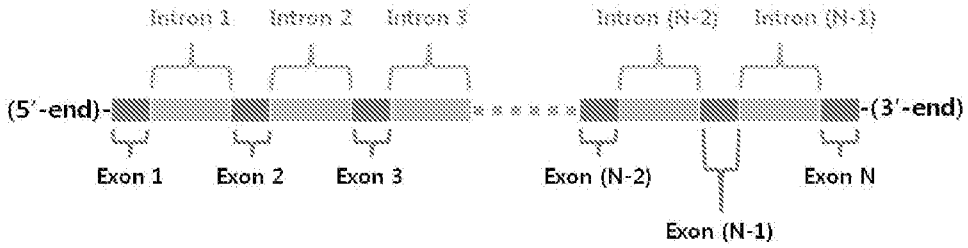


Figure 2B

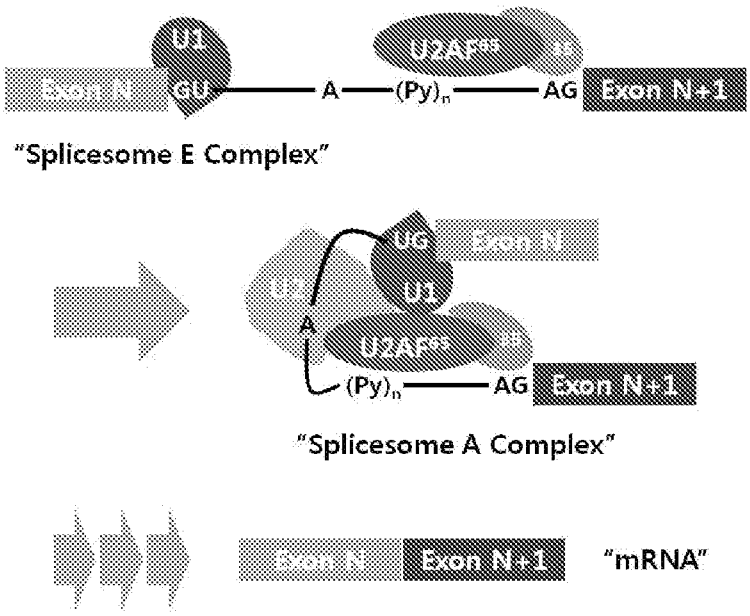


Figure 2C

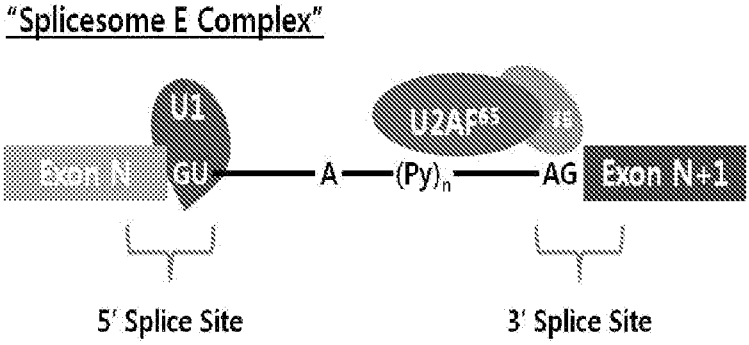


Figure 3A

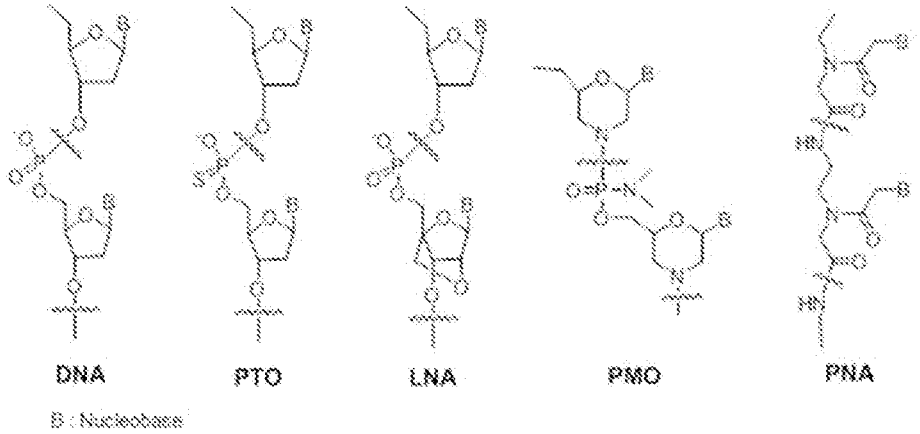


Figure 3B

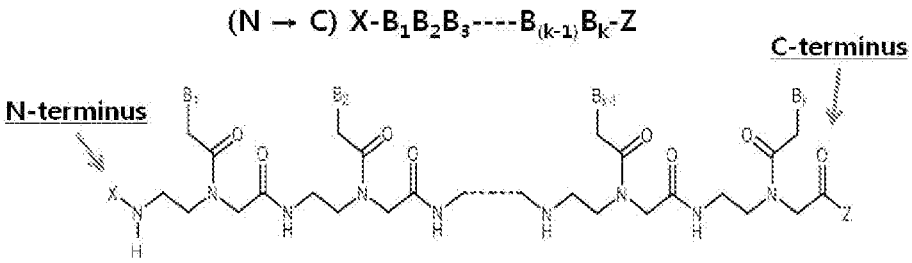


Figure 3C

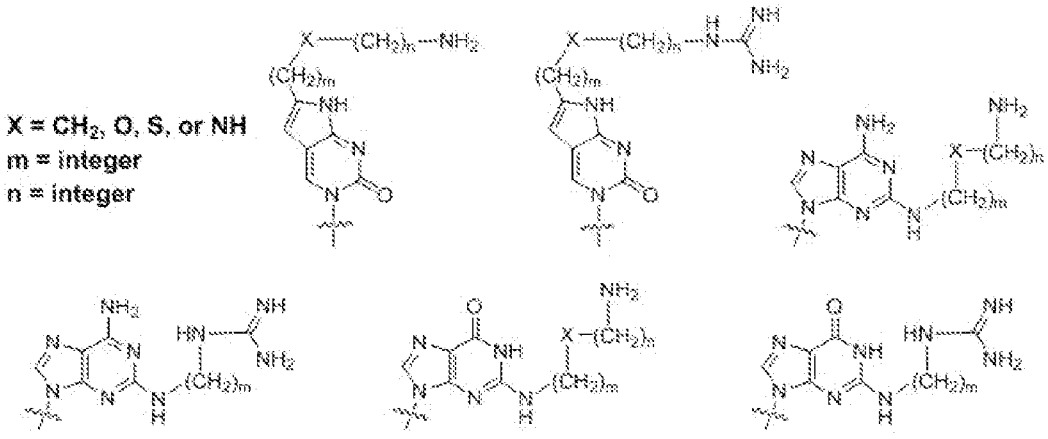


Figure 4

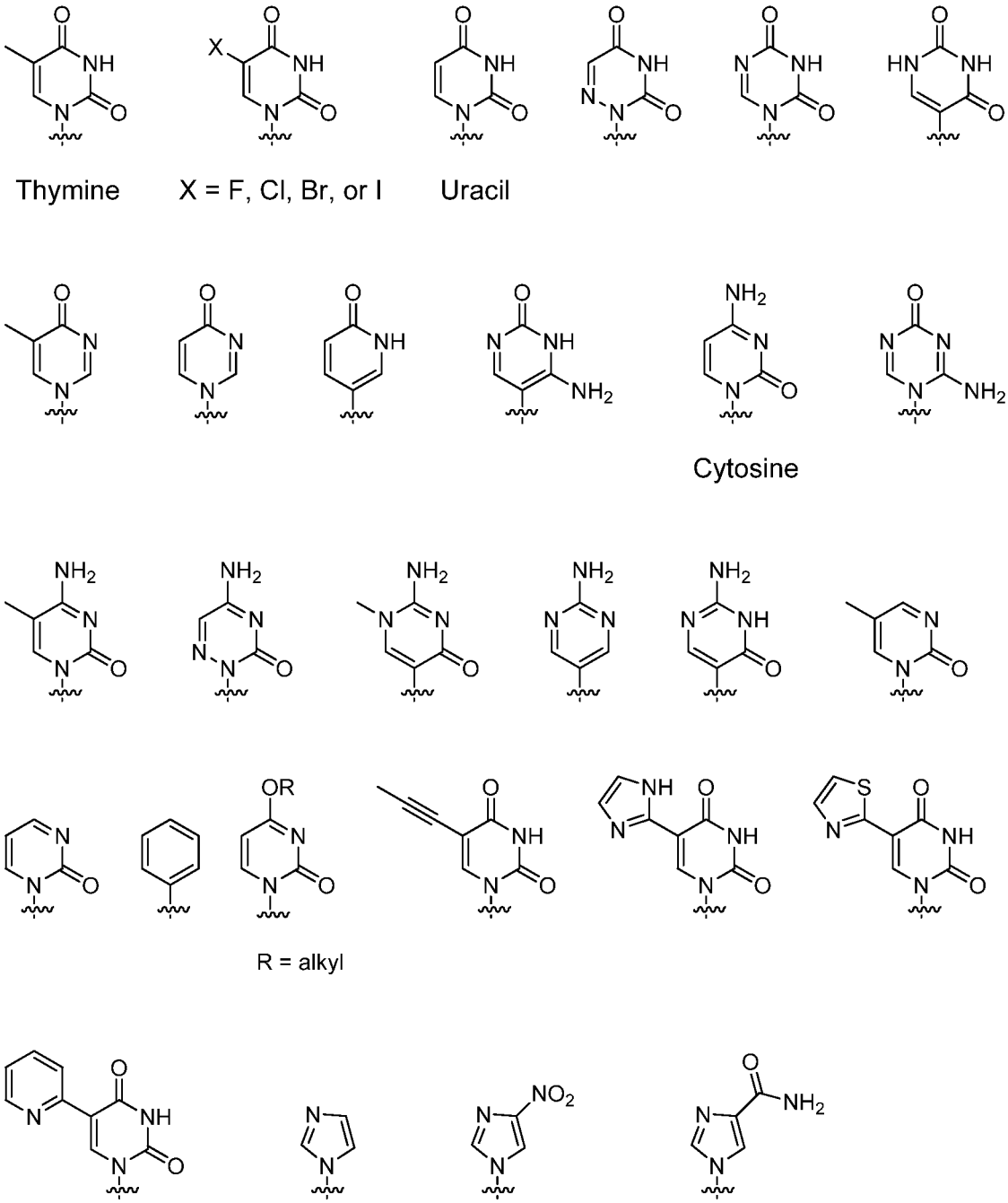


Figure 4 (continued from previous page)

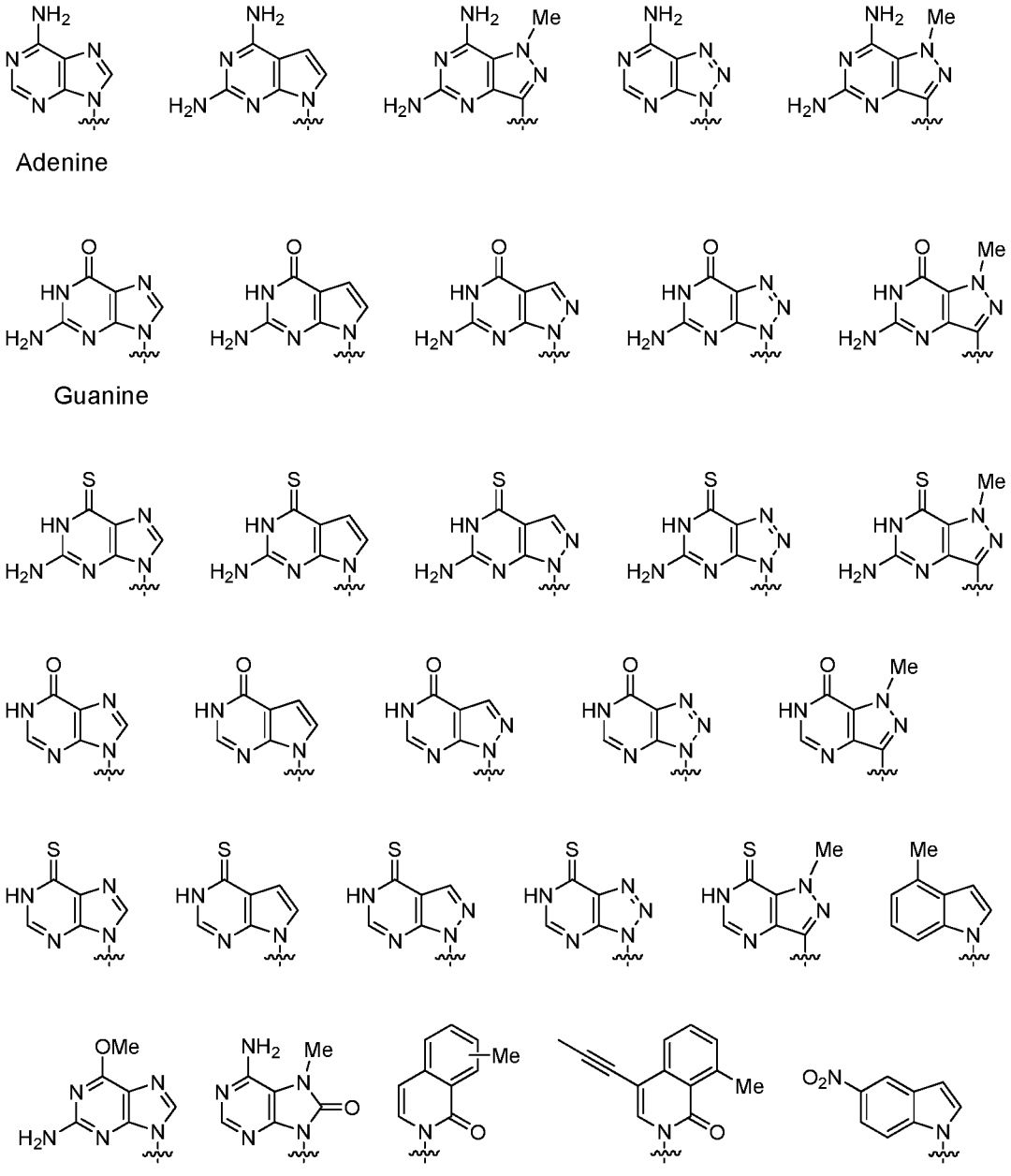


Figure 4 (continued from previous page)

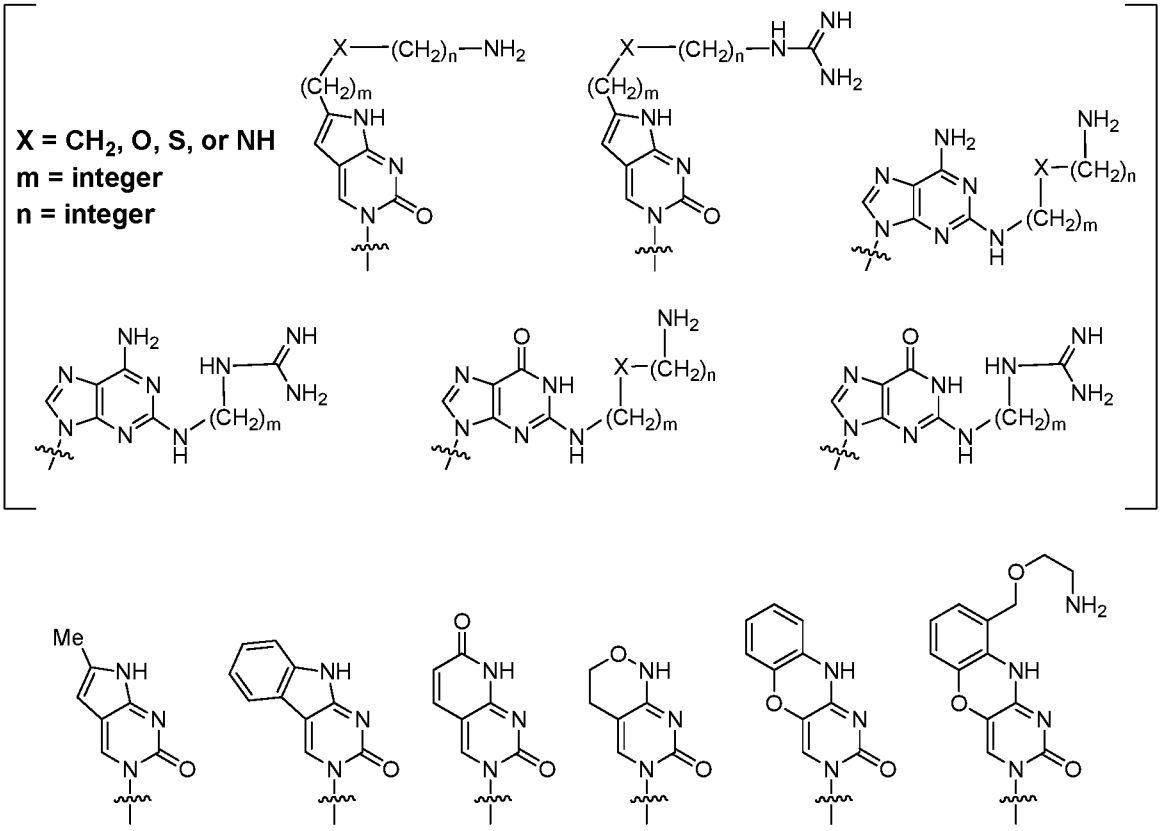
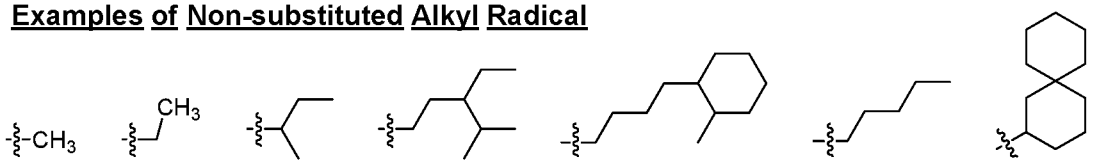


Figure 5A

Examples of Non-substituted Alkyl Radical



Examples of Substituted Alkyl Radical

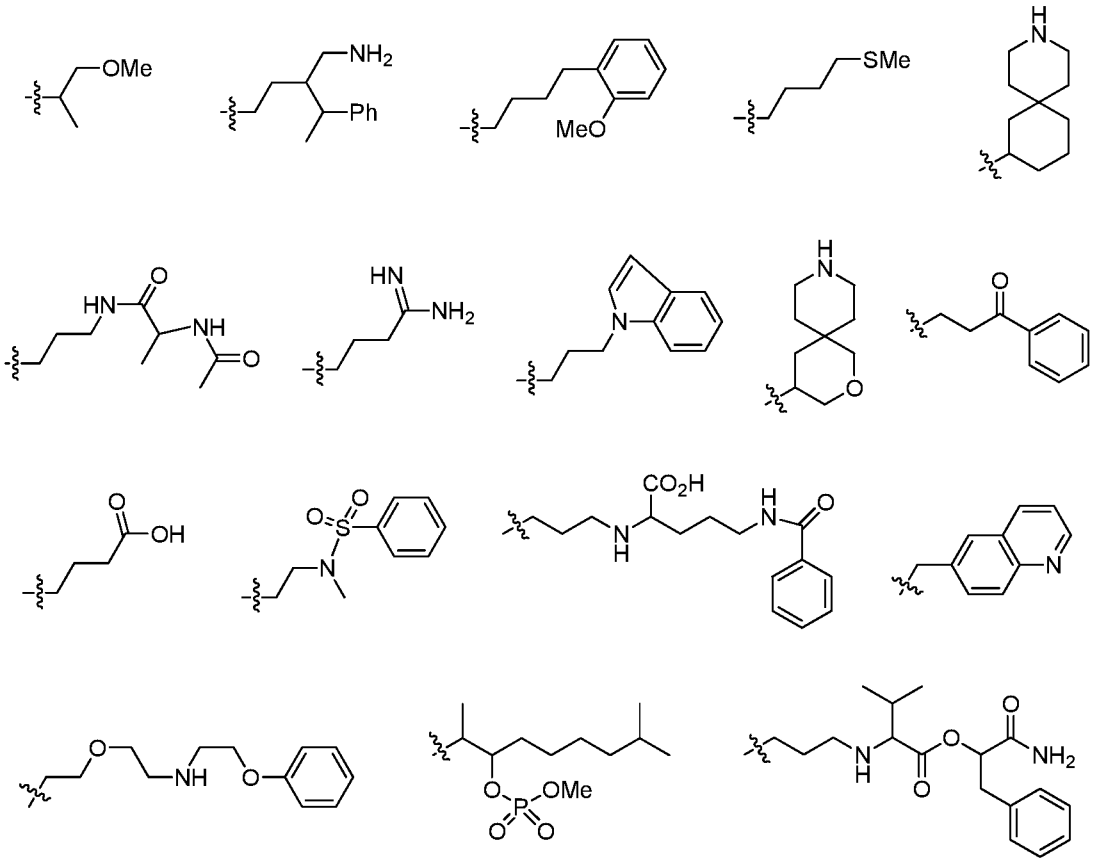
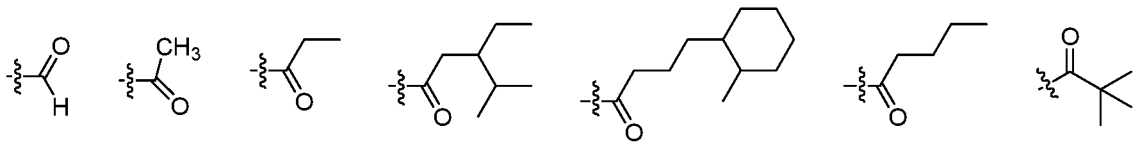
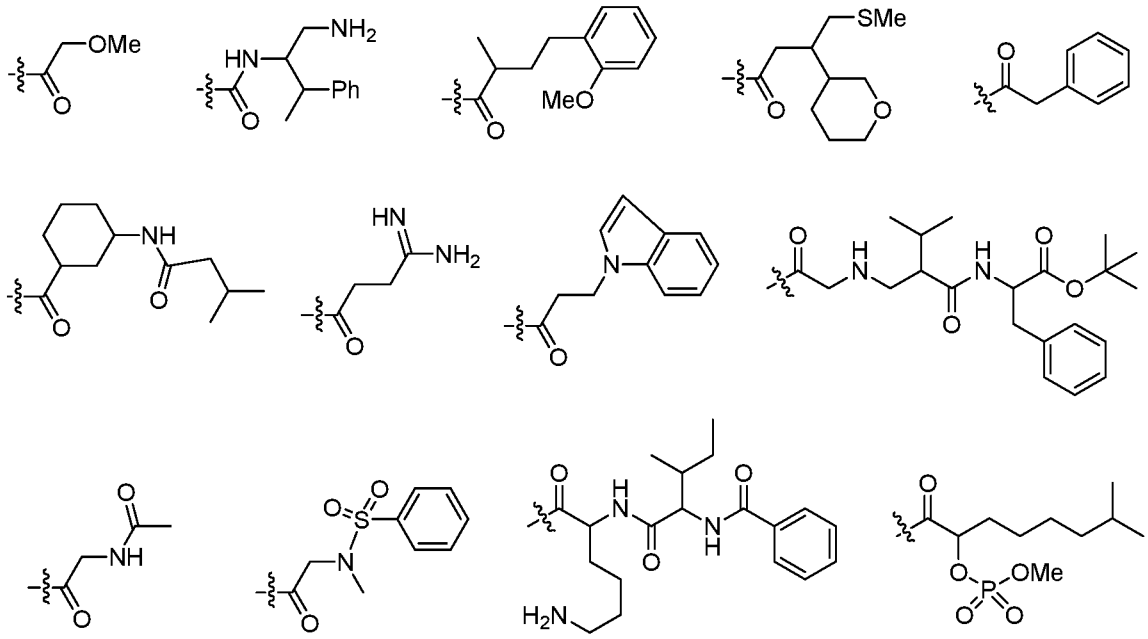


Figure 5B

Examples of Non-substituted Alkylacyl Radical



Examples of Substituted Alkylacyl Radical



Examples of Substituted or Non-substituted Arylacyl Radical

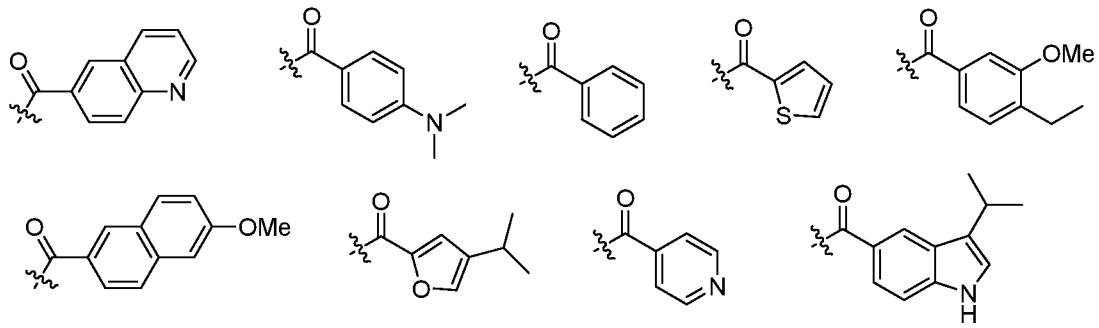
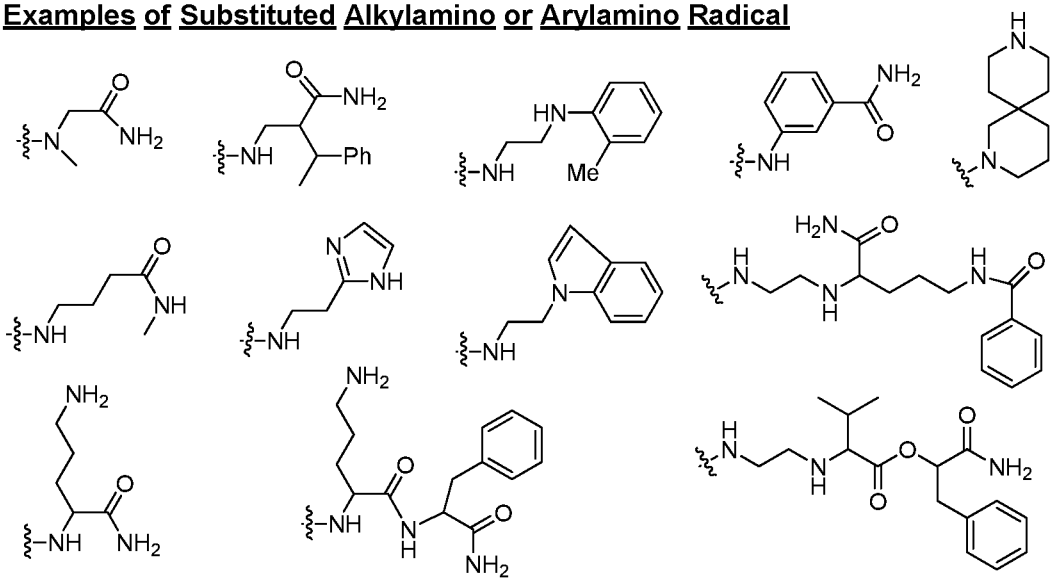
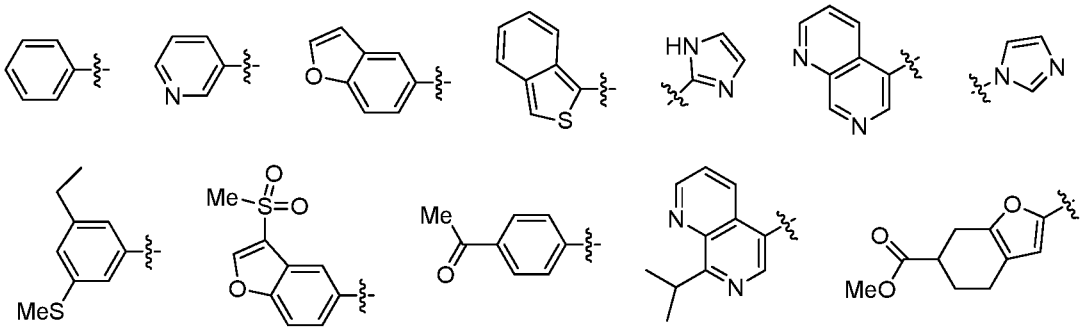


Figure 5C

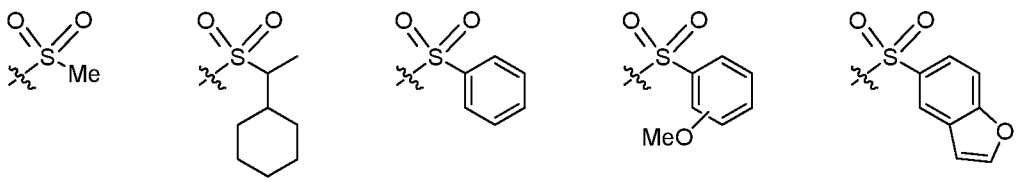
Examples of Substituted Alkylamino or Arylamino Radical



Examples of Substituted or Non-substituted Aryl Radical



Examples of Substituted or Non-substituted Alkylsulfonyl or Arylsulfonyl Radical



Examples of Substituted or Non-substituted Alkyl- or Aryl-phosphonyl Radical

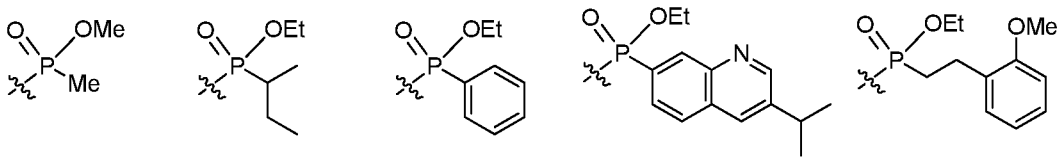
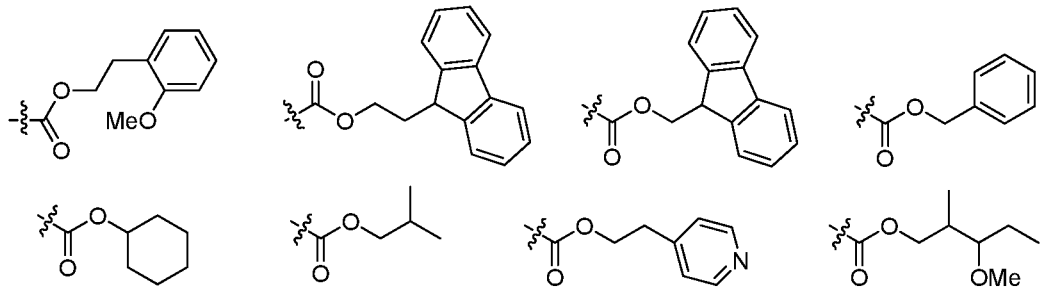
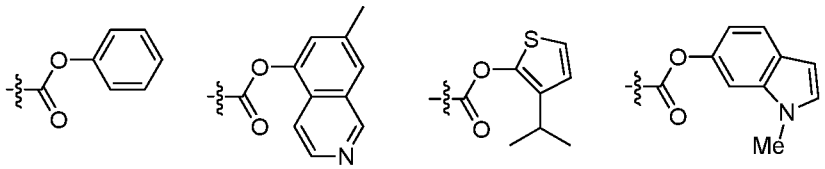


Figure 5D

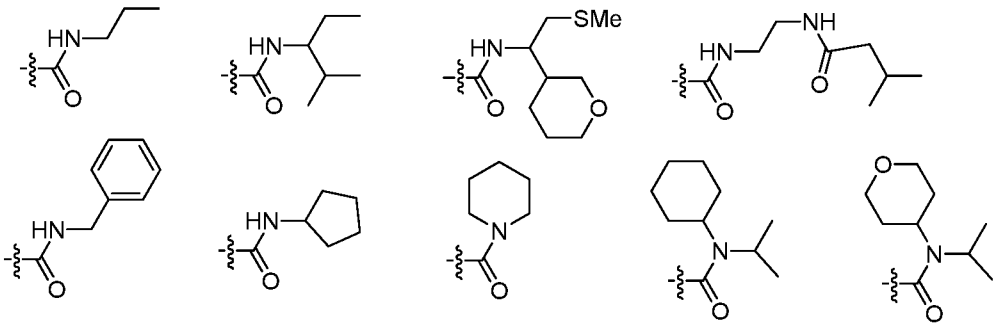
Examples of Substituted or Non-substituted Alkyloxycarbonyl Radical



Examples of Substituted or Non-substituted Aryloxycarbonyl Radical



Examples of Substituted or Non-substituted Alkylaminocarbonyl Radical



Examples of Substituted or Non-substituted Arylaminocarbonyl Radical

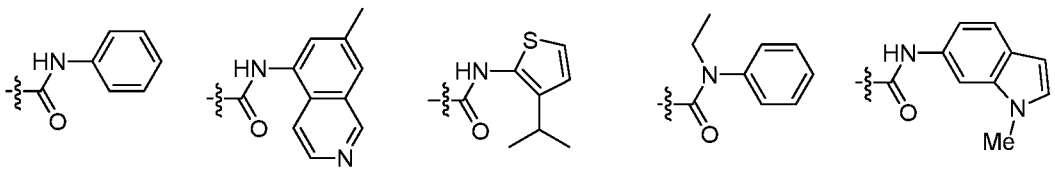
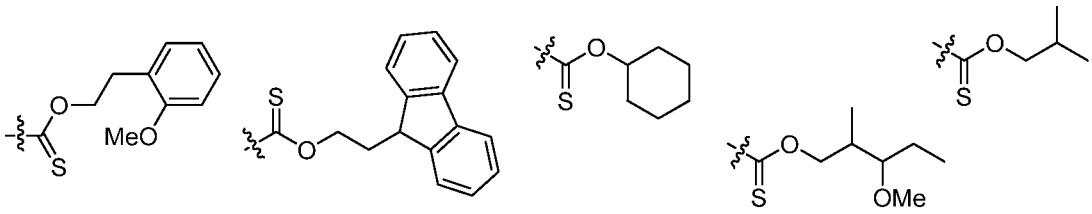
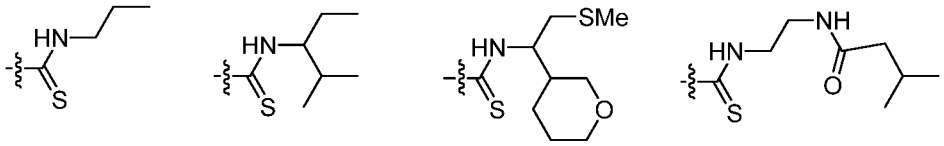


Figure 5E

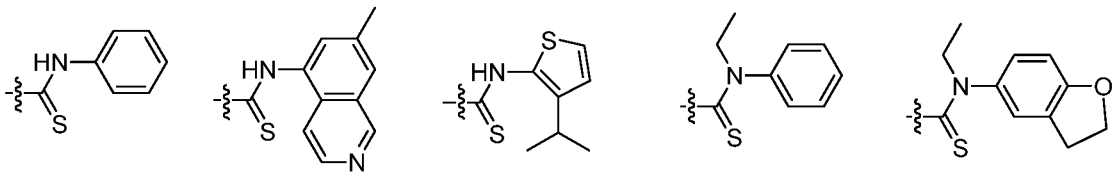
Examples of Substituted or Non-substituted Alkyloxythiocarbonyl Radical



Examples of Substituted or Non-substituted Alkylaminothiocarbonyl Radical



Examples of Substituted or Non-substituted Arylaminothiocarbonyl Radical



Examples of Substituted or Non-substituted Aryloxythiocarbonyl Radical

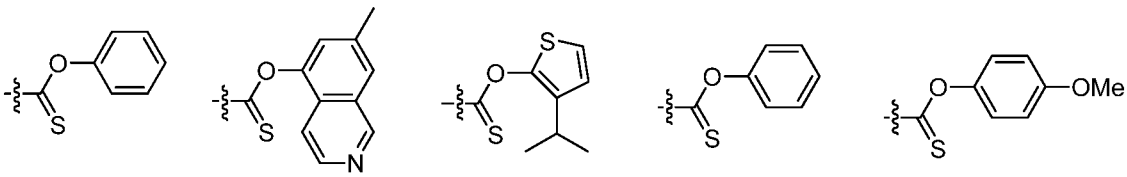
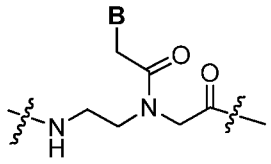


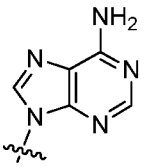
Figure 6

PNA Monomer

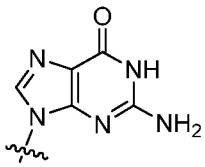


B : Nucleobase
X : O (oxygen atom)
p : Integer
q : Integer

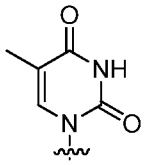
Adenine

B = 

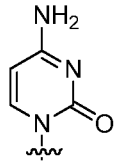
Guanine

B = 

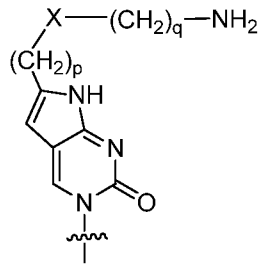
Thymine

B = 

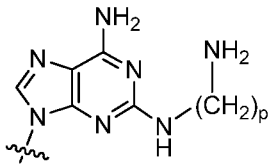
Cytosine

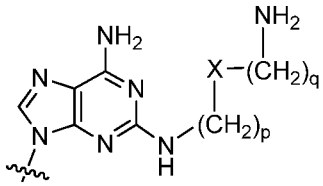
B = 

Modified Cytosine

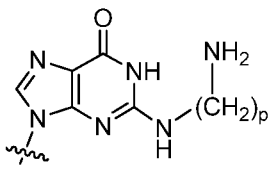
C(pXq) : **B** = 

Modified Adenine

A(p) : **B** = 

A(pXp) : **B** = 

Modified Guanine

G(p) : **B** = 

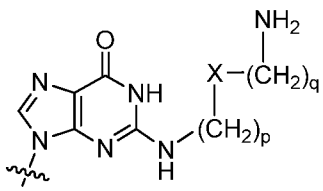
G(pXq) : **B** = 

Figure 7

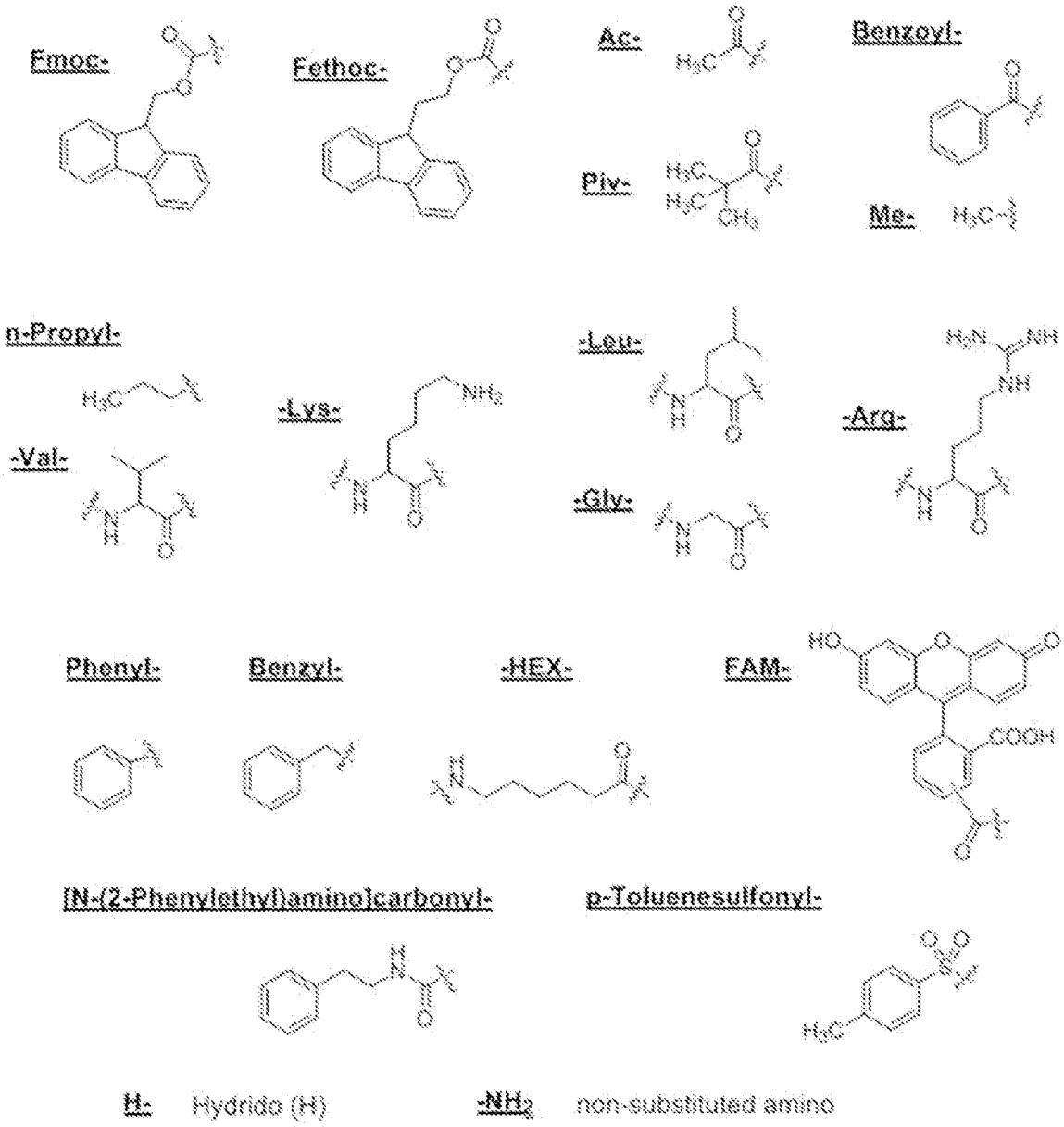

Fmoc-
Fethoc-
Ac-
Benzoyl-
Piv-
Me-
n-Propyl-
-Val-
-Lys-
-Leu-
-Gly-
-Arg-
Phenyl-
Benzyl-
-HEX-
FAM-
COOH
[N-(2-Phenylethyl)amino]carbonyl-
p-Toluenesulfonyl-
H- Hydrido (H)
-NH2 non-substituted amino

Figure 8

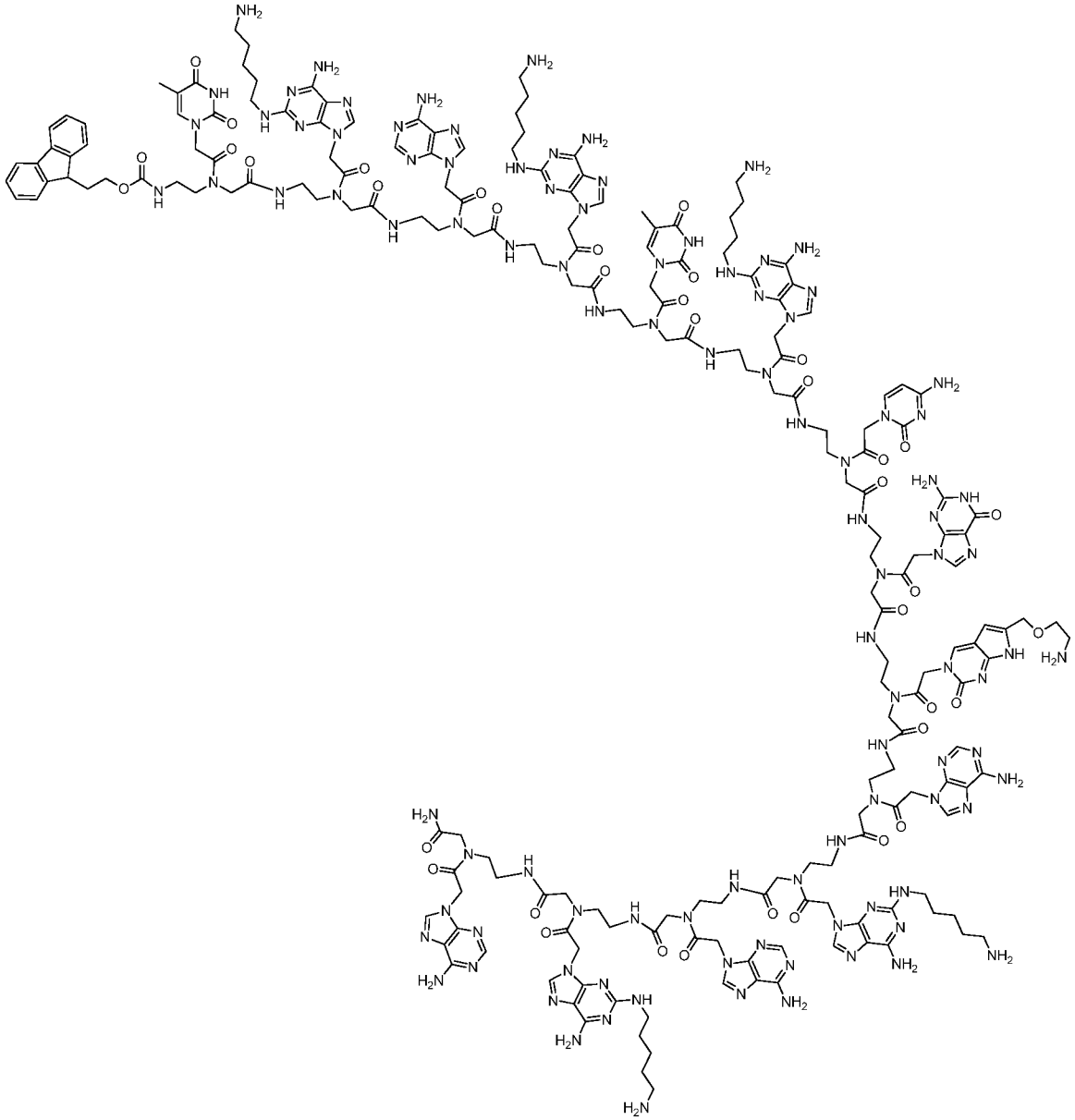


Figure 9

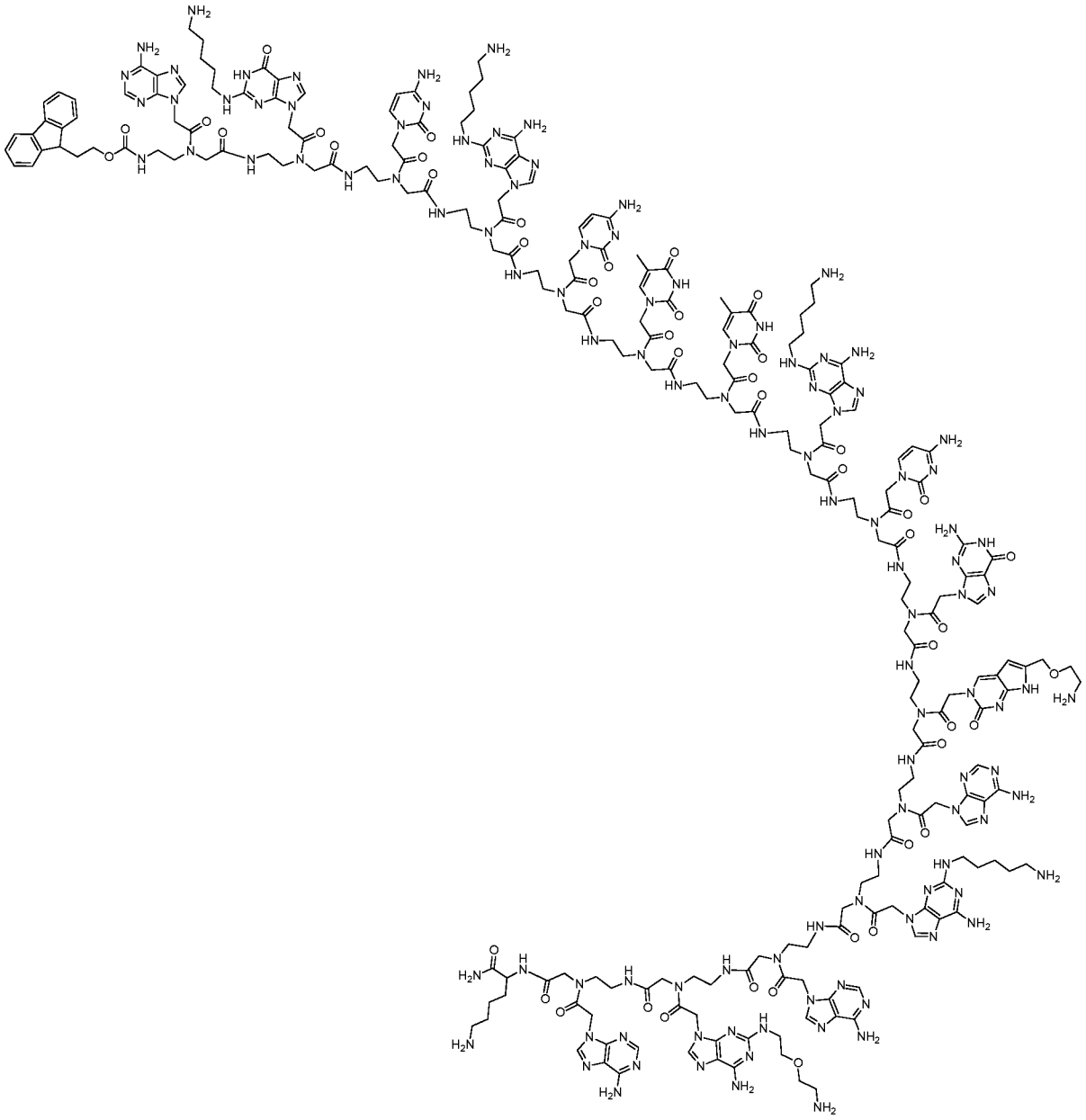
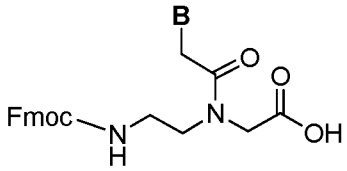
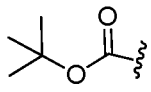


Figure 10

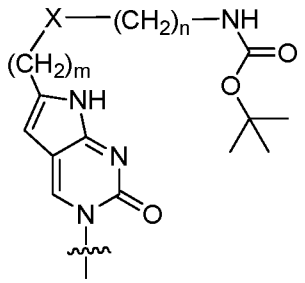
Fmoc-PNA Monomer



B : Nucleobase with protecting group(s)
X : methylene, oxygen, sulfur, or Boc-protected amino
m : Integer
n : Integer

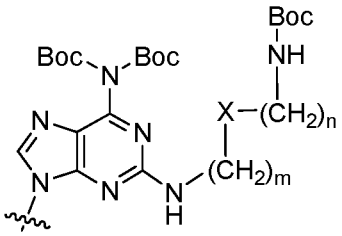
Boc- 

Modified Cytosine

C(mXn) : **B** = 

Modified Adenine

A(mXn) :

B = 

Modified Guanine

G(mXn) :

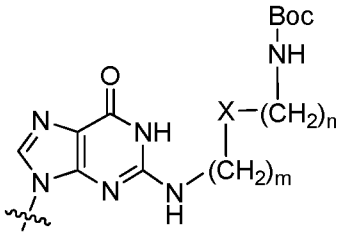
B = 

Figure 11

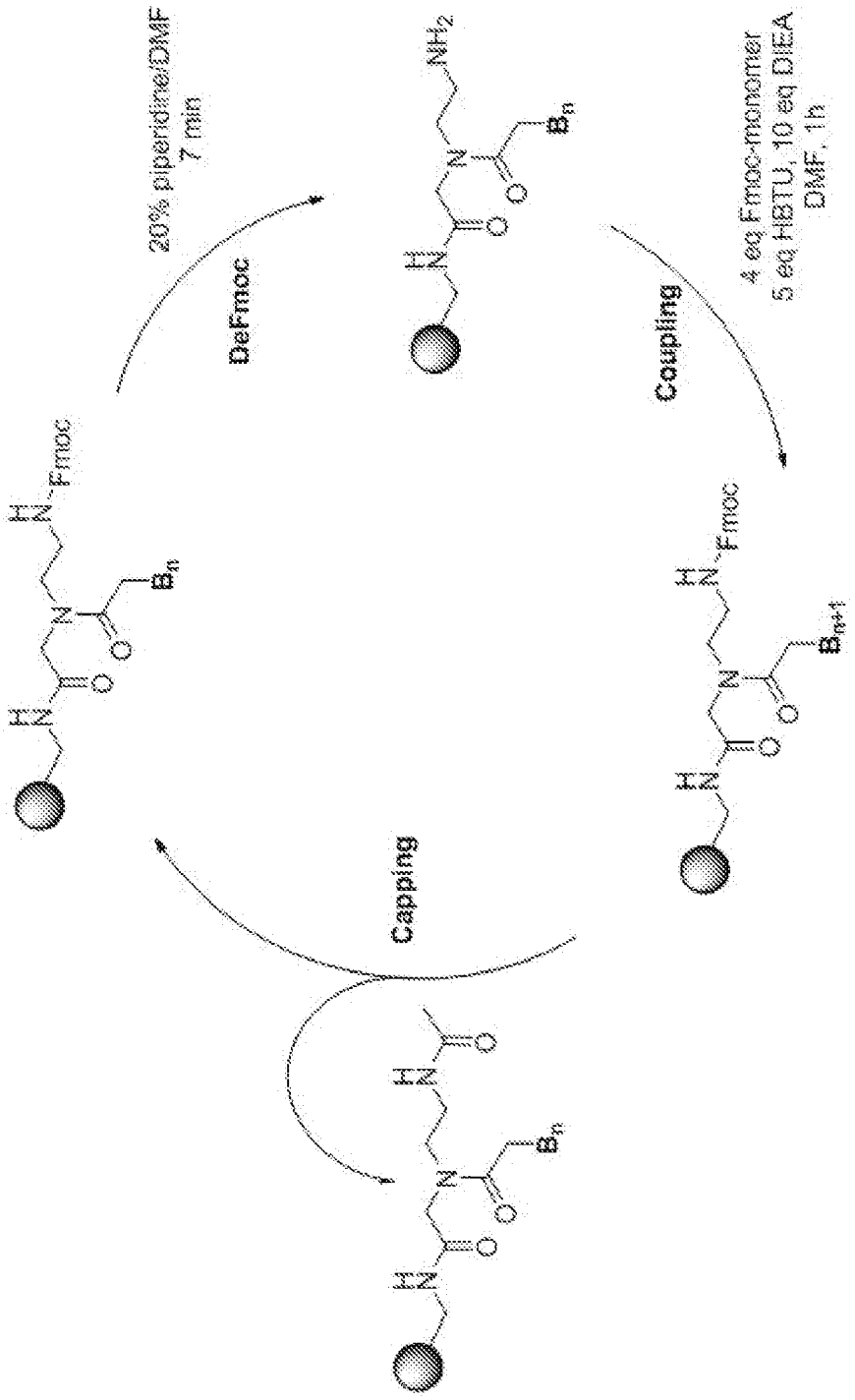

20% piperidine/DMF
7 min
DeFmoc
Coupling
4 eq Fmoc-monomer
5 eq HBTU, 10 eq DIEA
DMF, 1h
Capping
Fmoc
NH2
Bn
Bn+1

Figure 12A

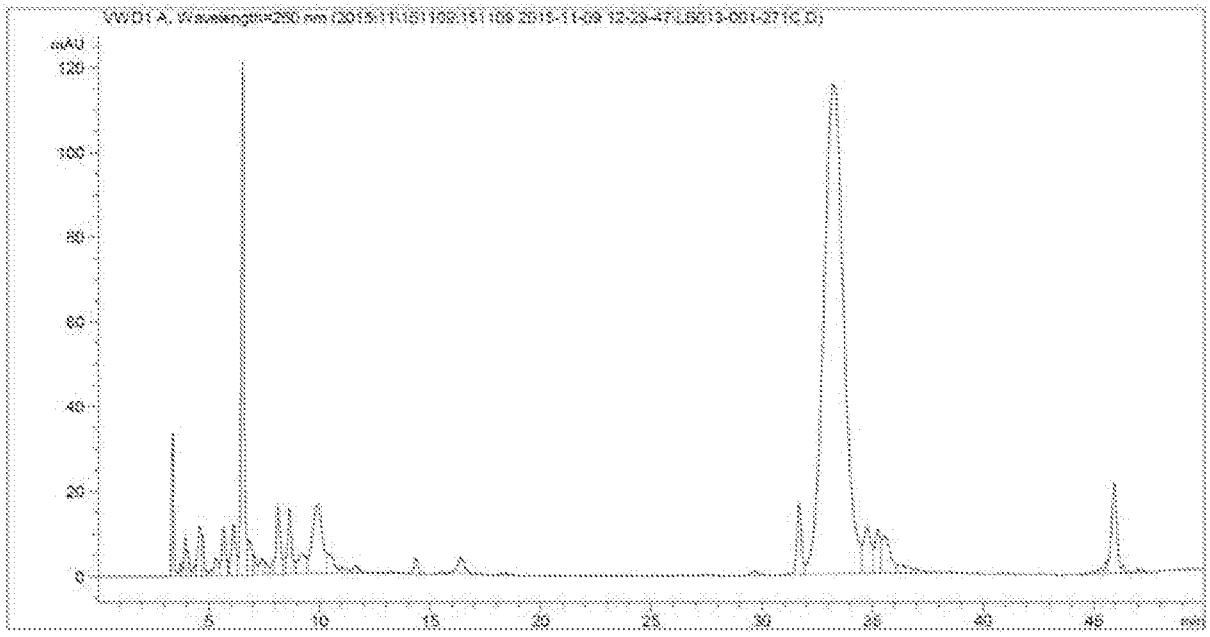


Figure 12B

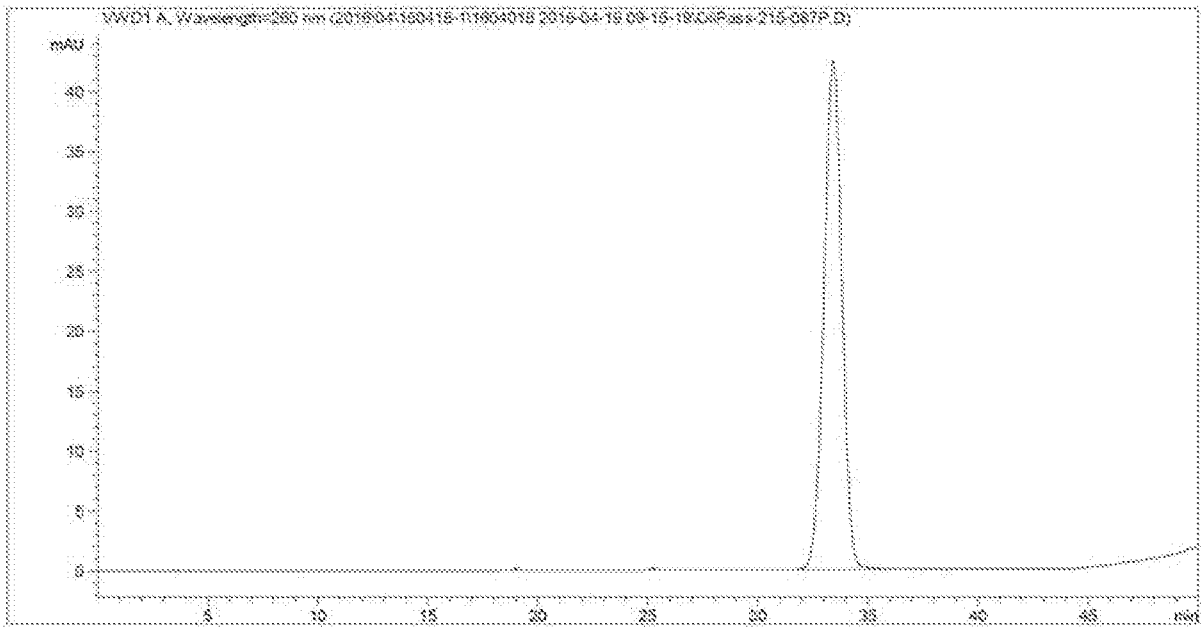


Figure 13

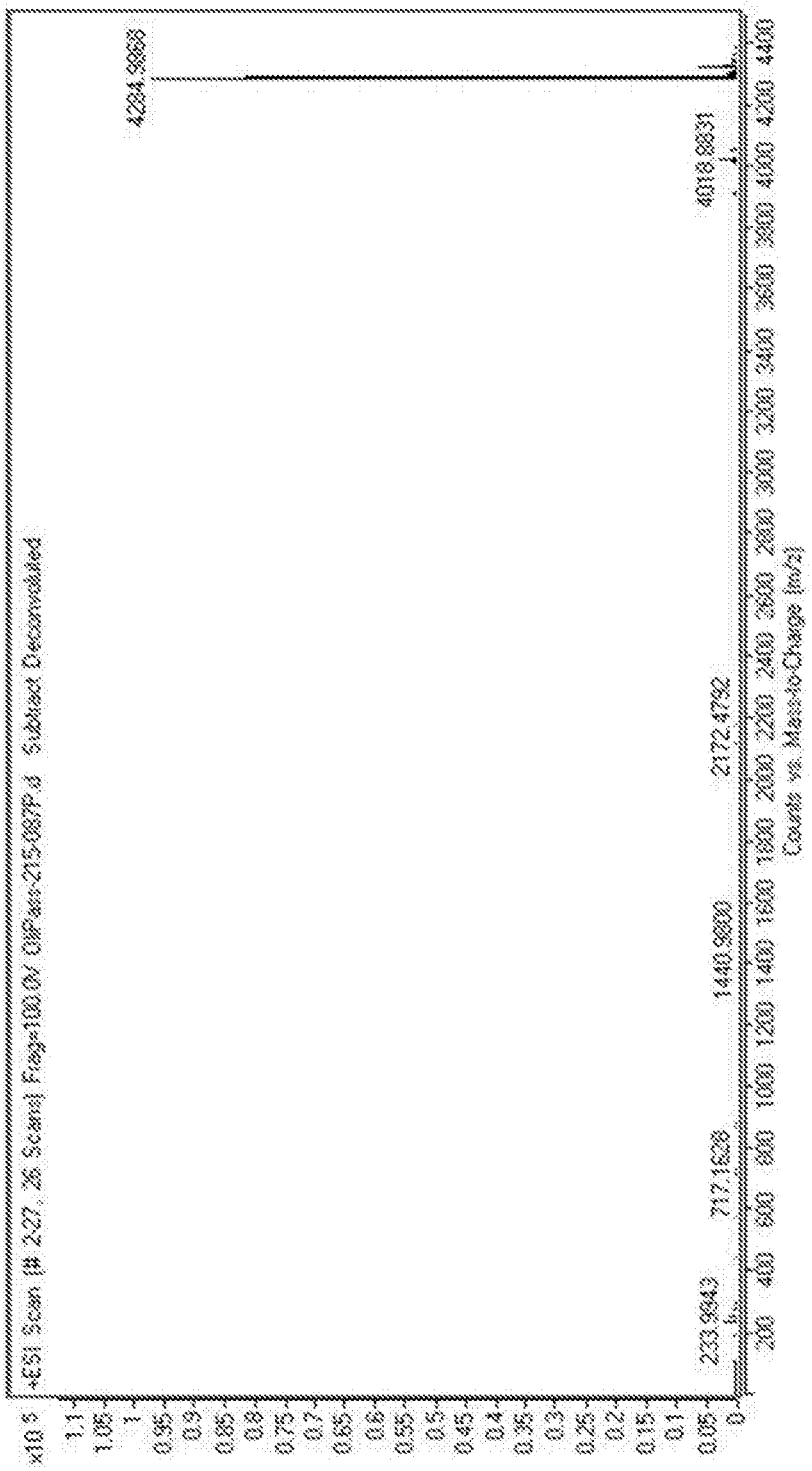

+ESI Scan (# 2-27, 26 Scans) Frag=100.0V QtPass-215-087P.d Subtract Deconvoluted
x10 5
Counts vs. Mass-to-Charge (m/z)
4284.9868
4018.8831
2172.4792
1440.9800
717.1628
233.9949

Figure 14A

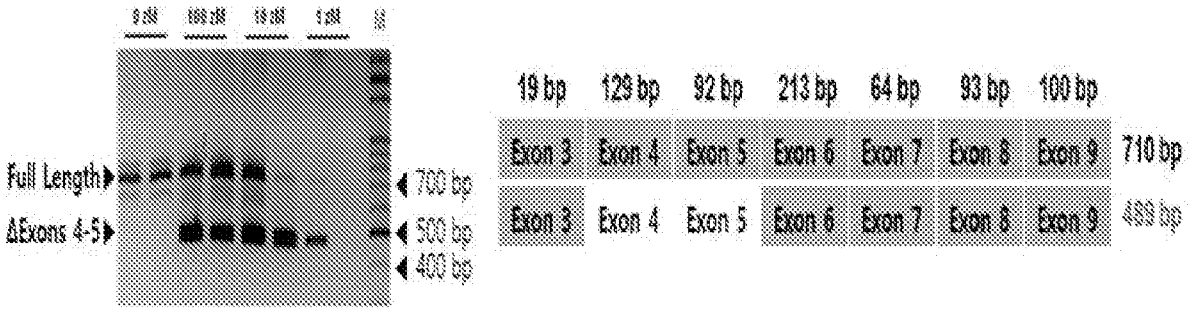


Figure 14B

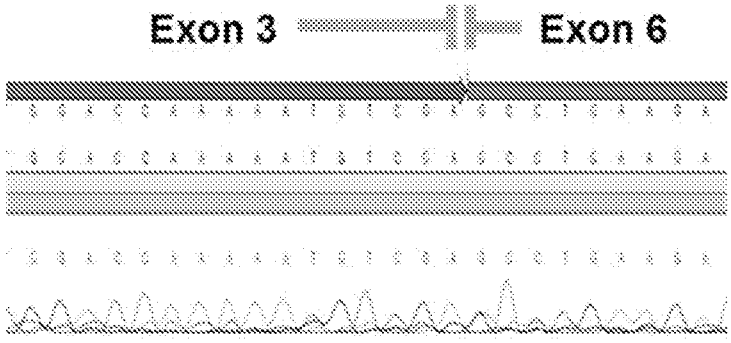


Figure 14C

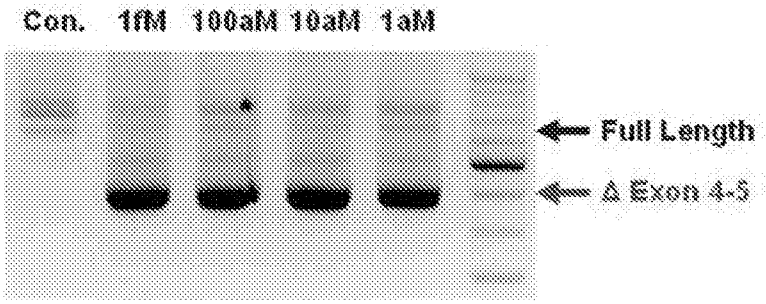


Figure 15A

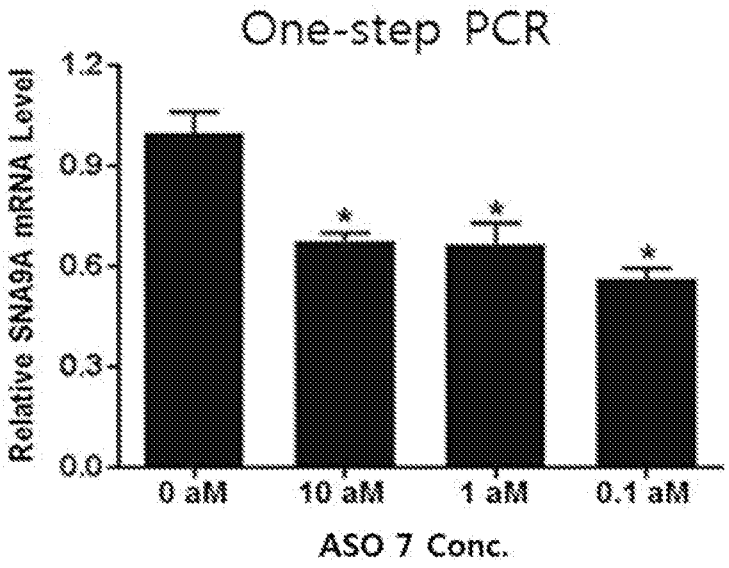


Figure 15B

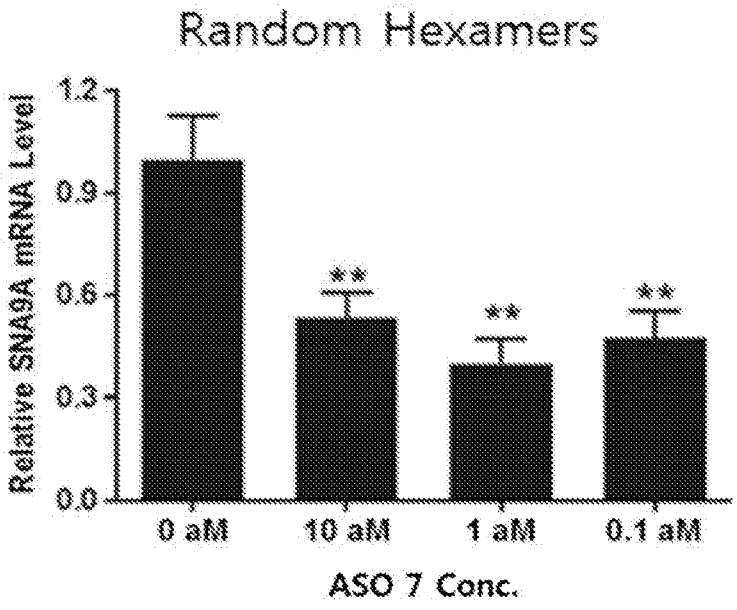


Figure 16A

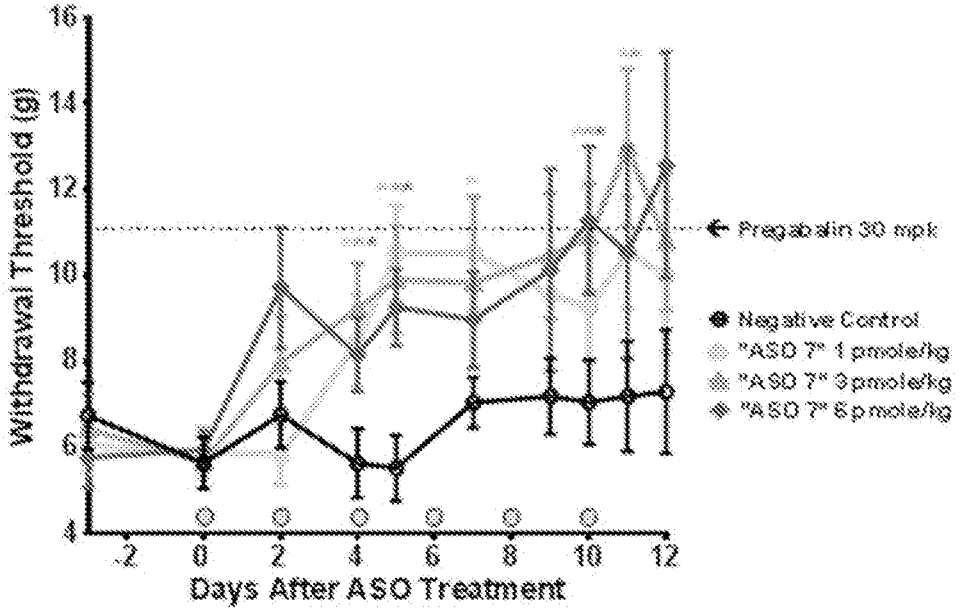


Figure 16B

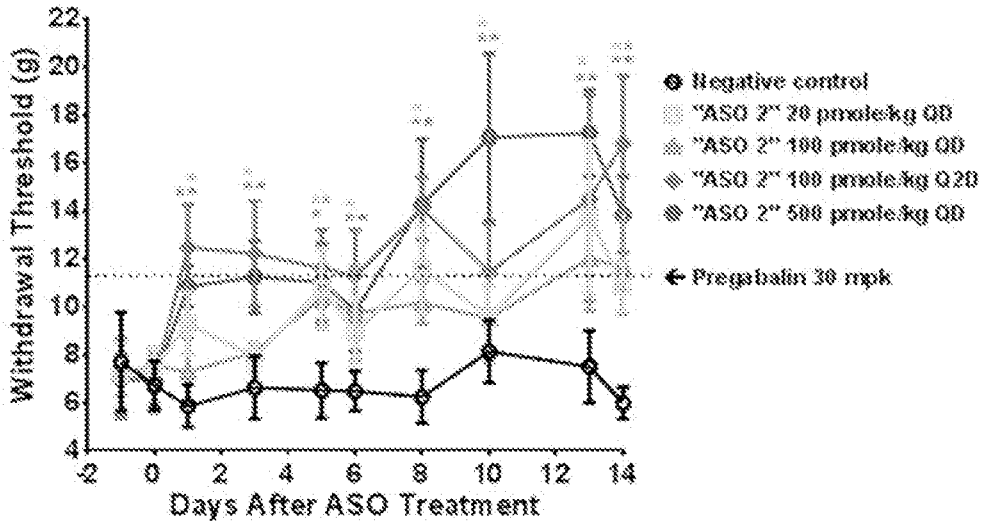


Figure 17A

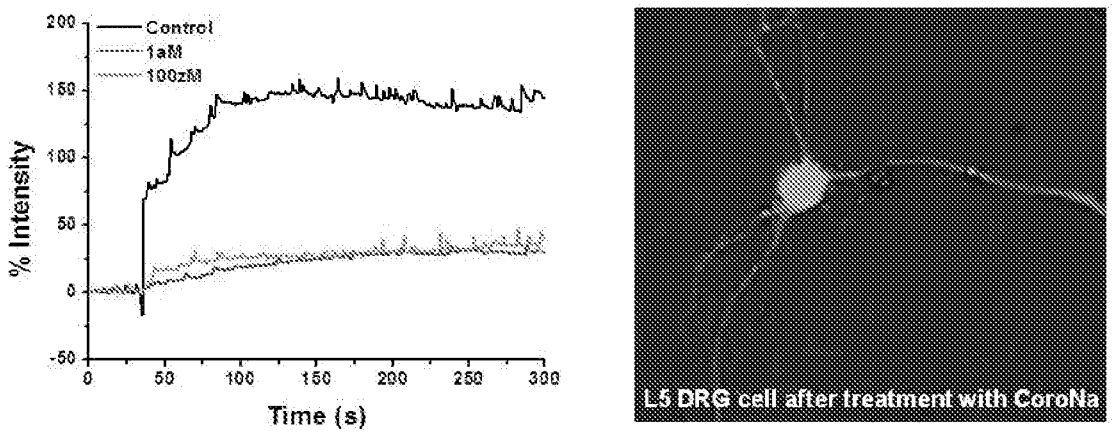


Figure 17B

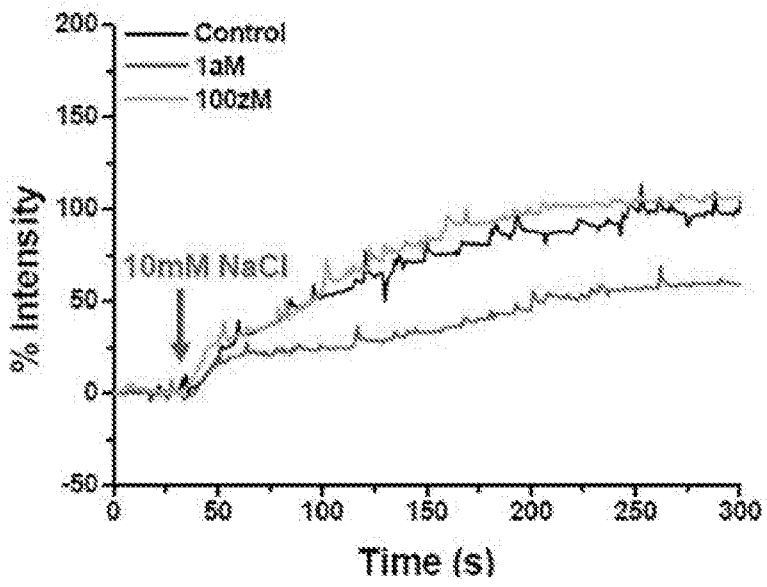


Figure 18A

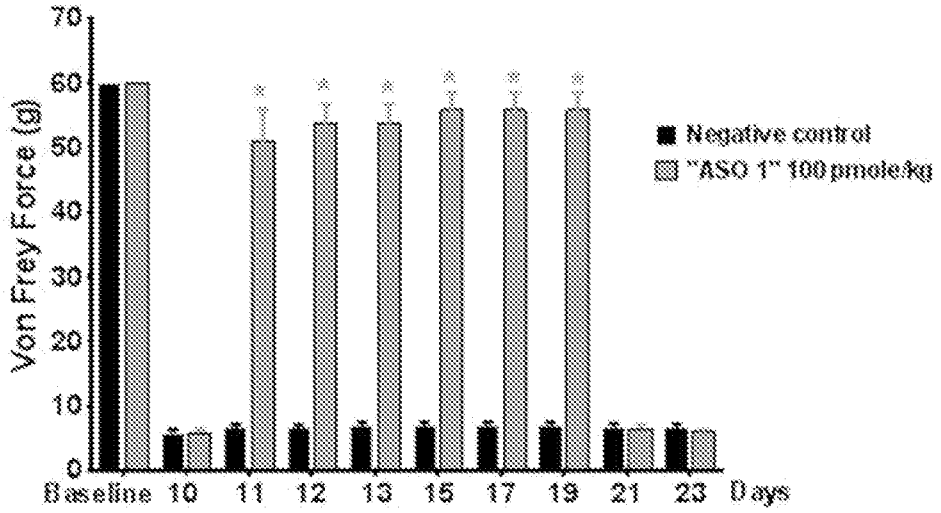


Figure 18B

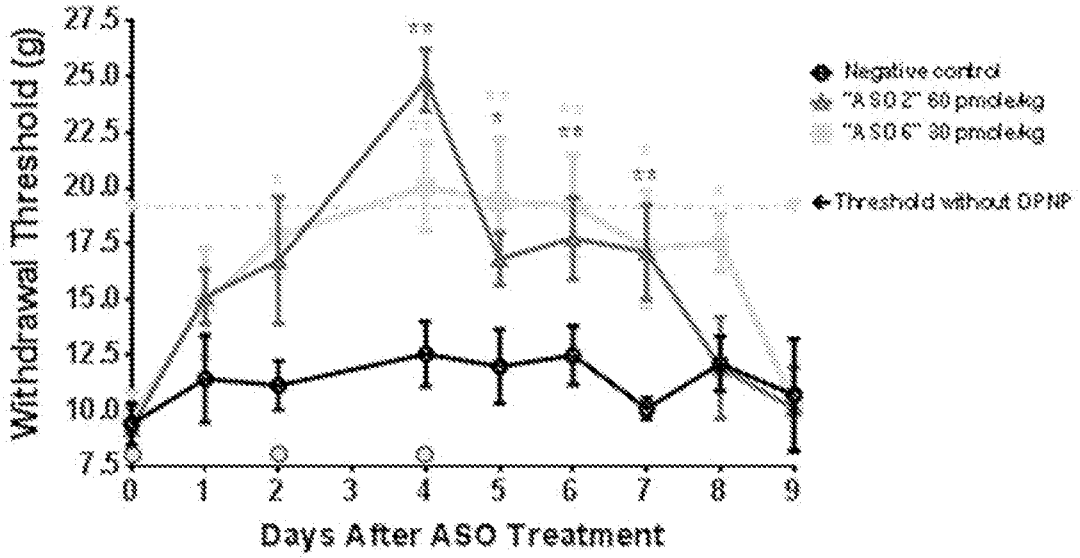


Figure 19A

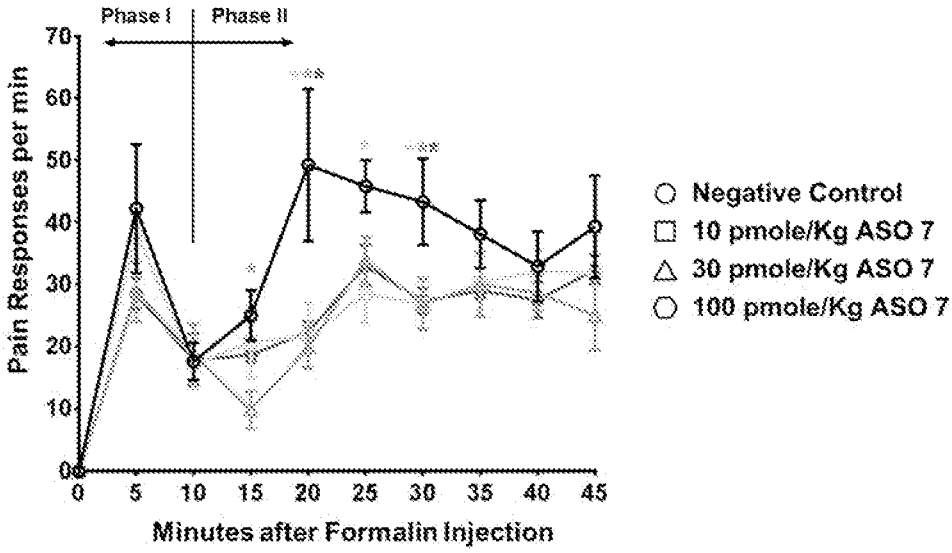


Figure 19B

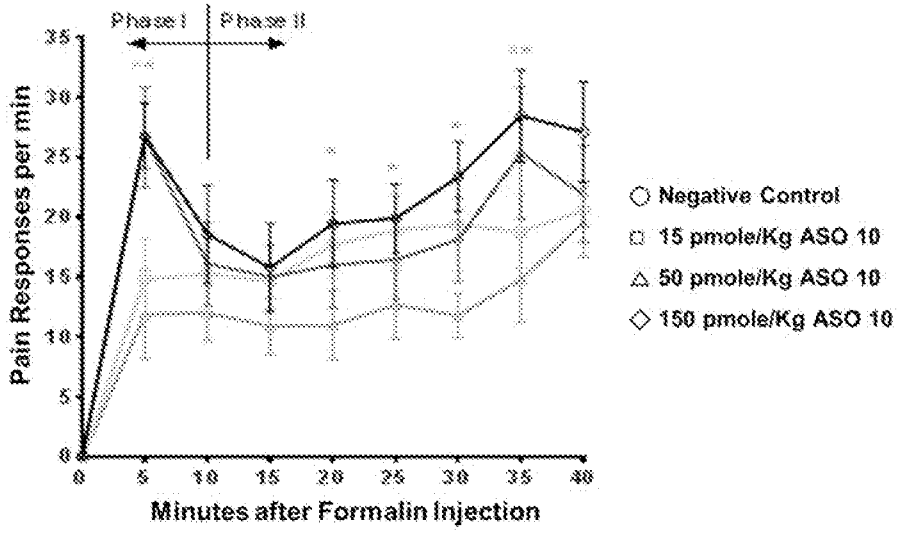


Figure 20A

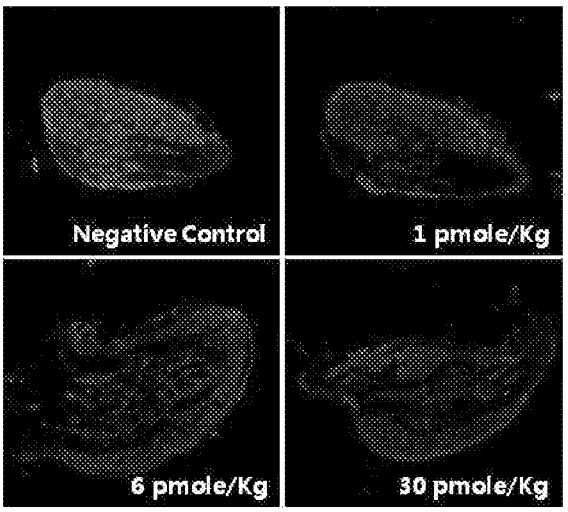


Figure 20B

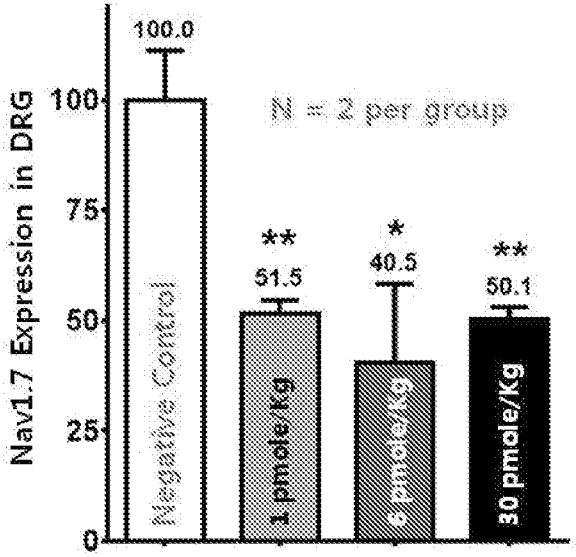


Figure 21A

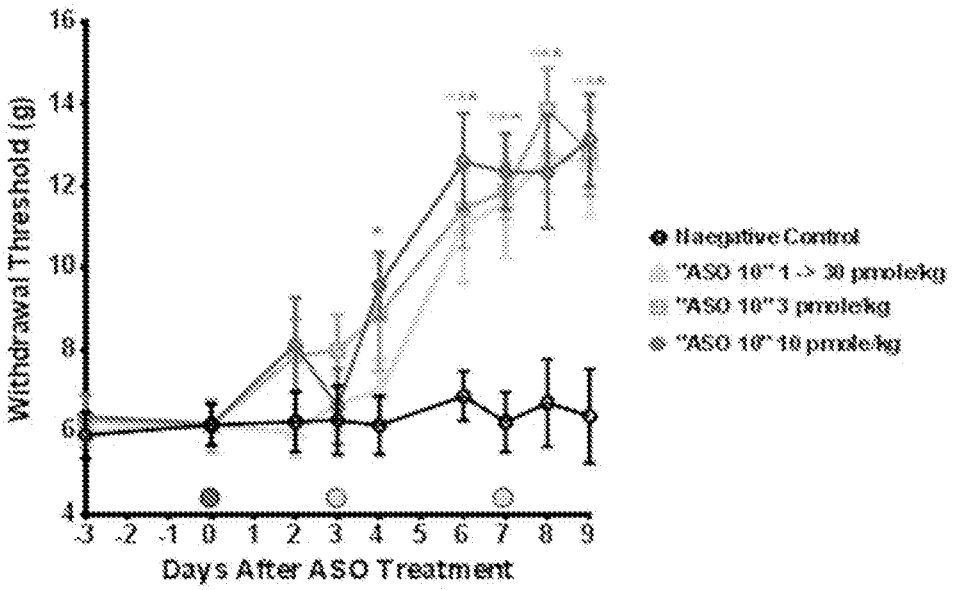


Figure 21B

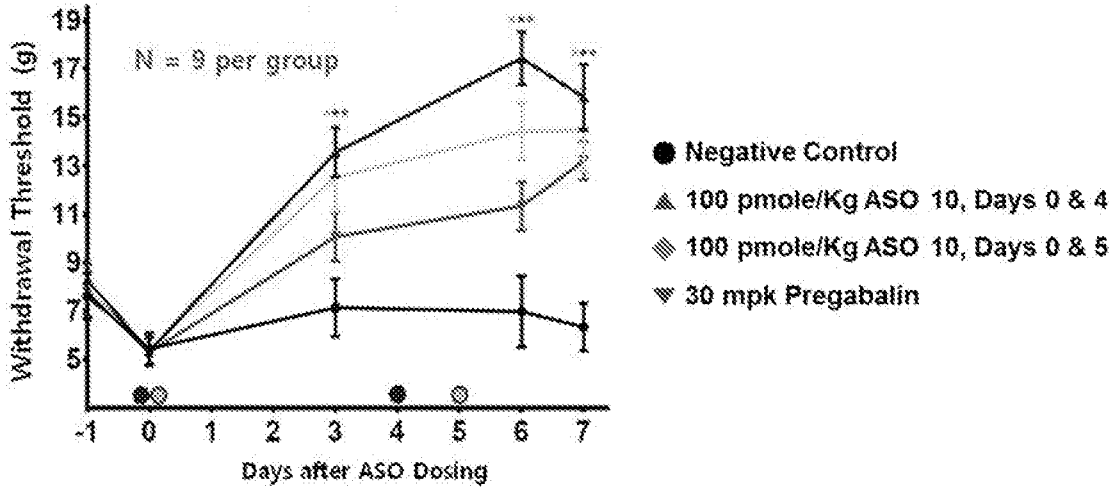
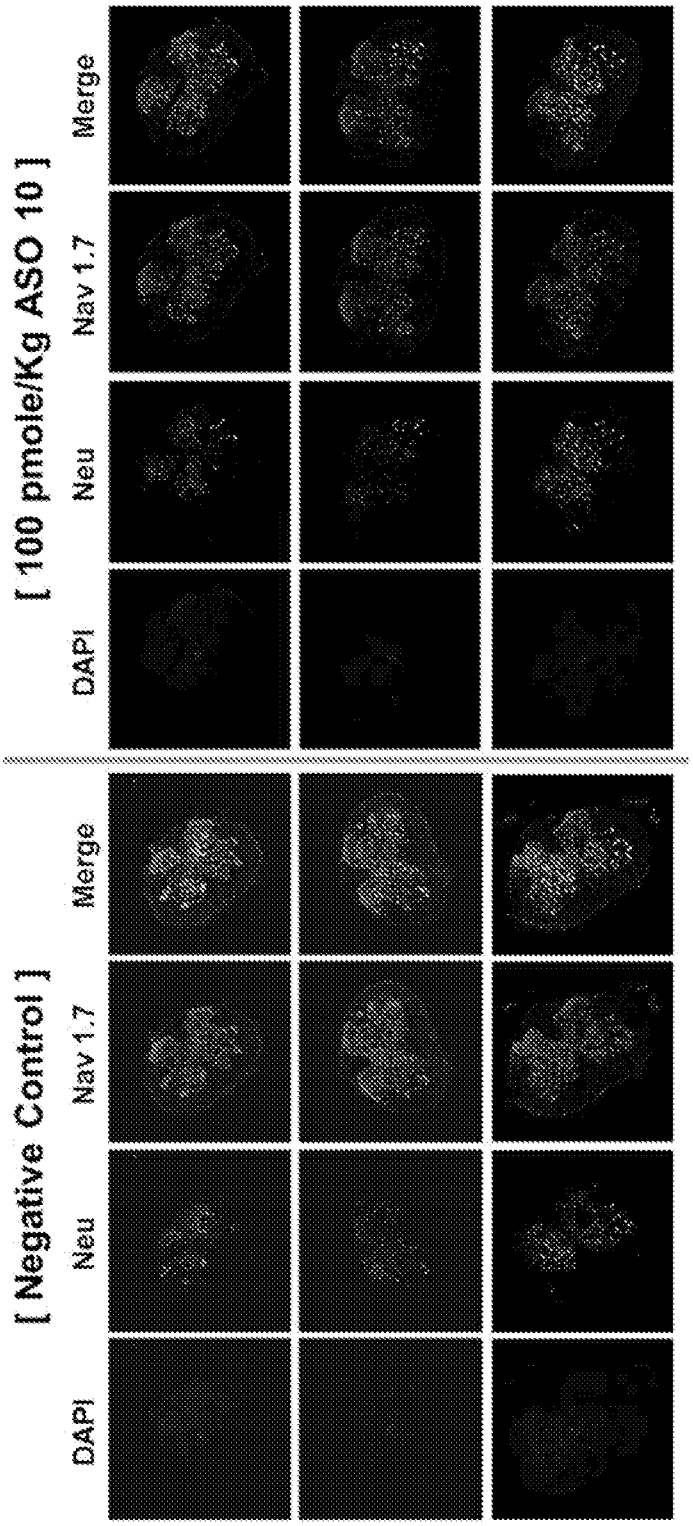


Figure 22


[100 pmole/Kg ASO 10]
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Nav 1.7
Merge
[Negative Control]
DAPI
Neu
Nav 1.7
Merge

Figure 23A

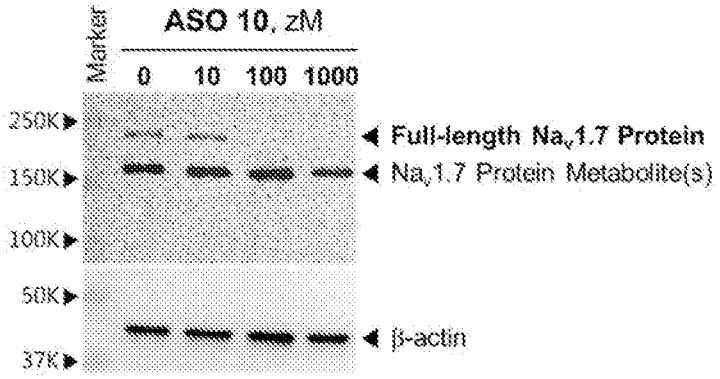

Figure 23B

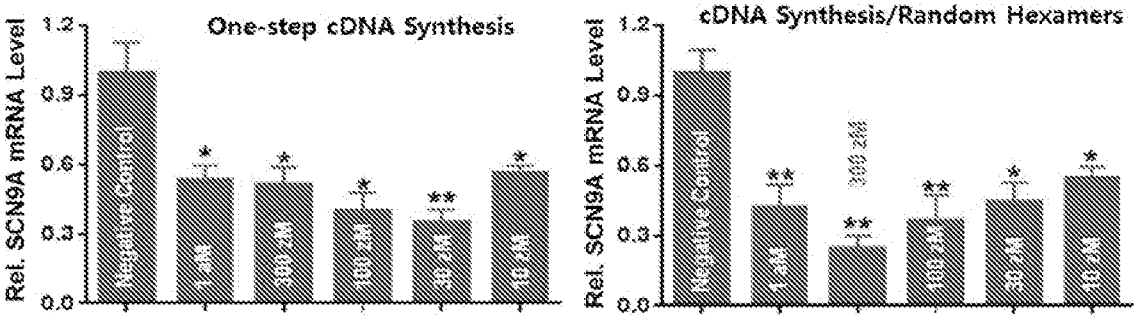

Figure 23C

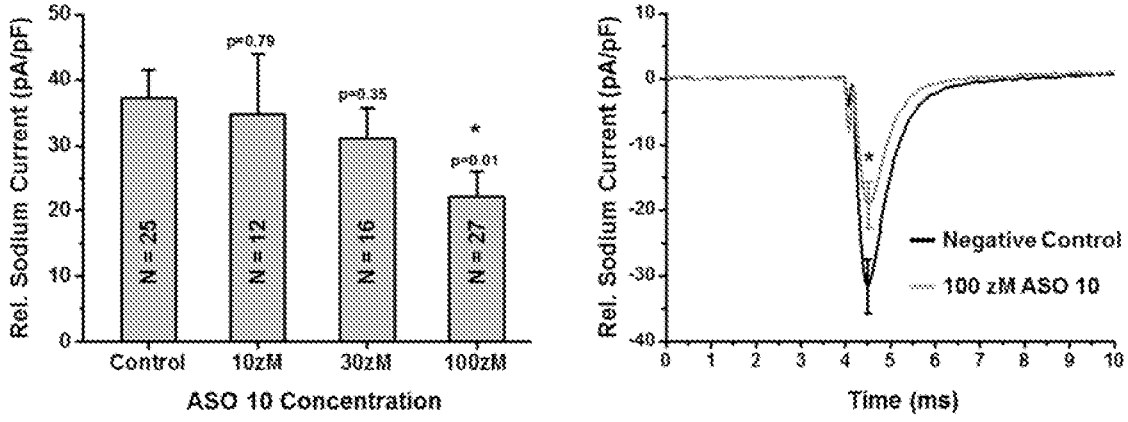

Figure 24A

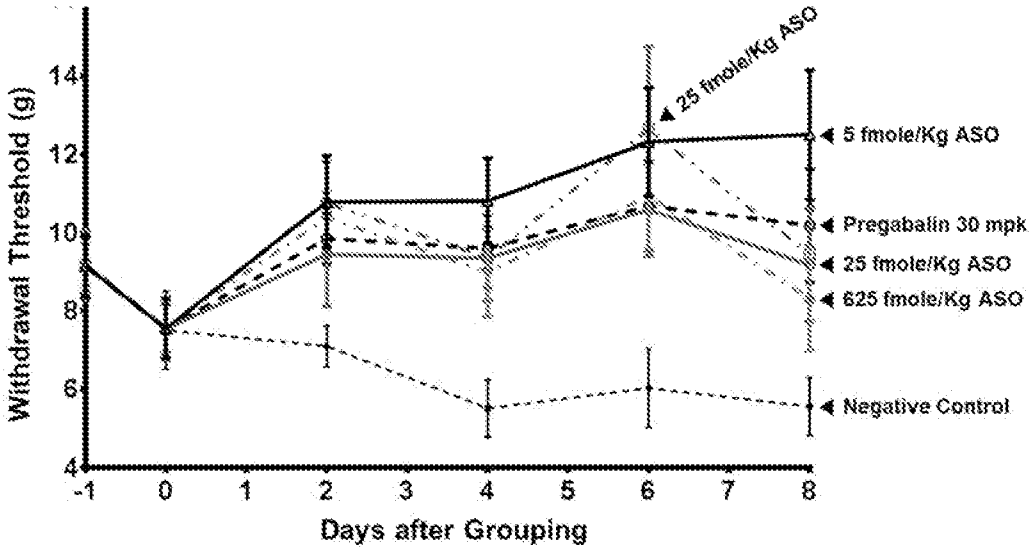
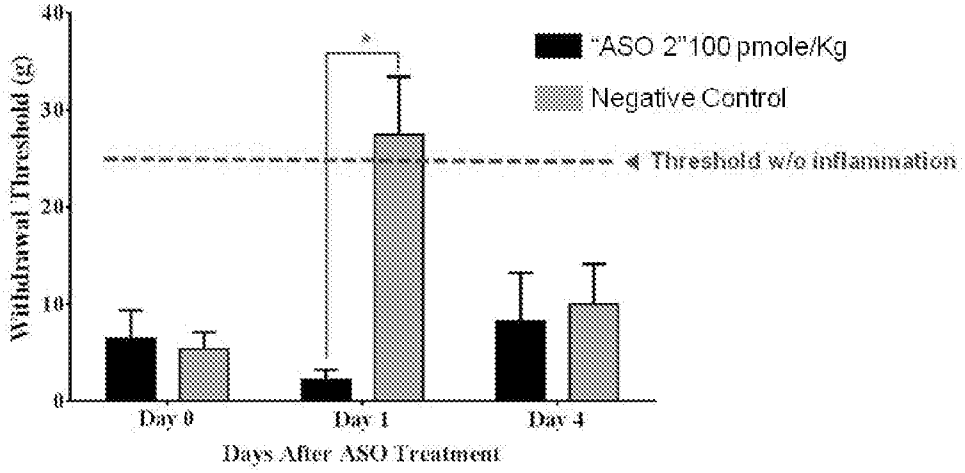
Figure 24B