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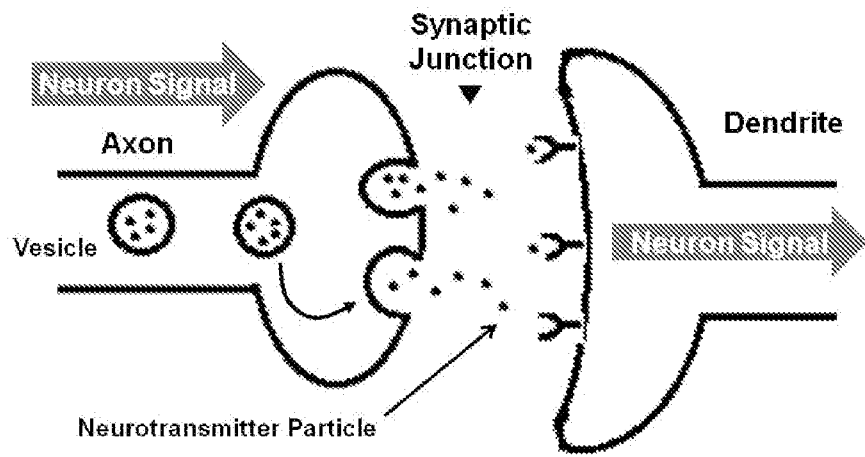
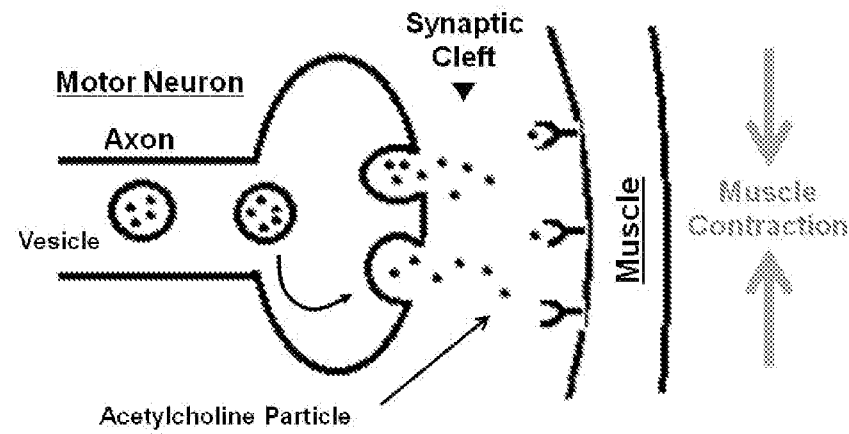
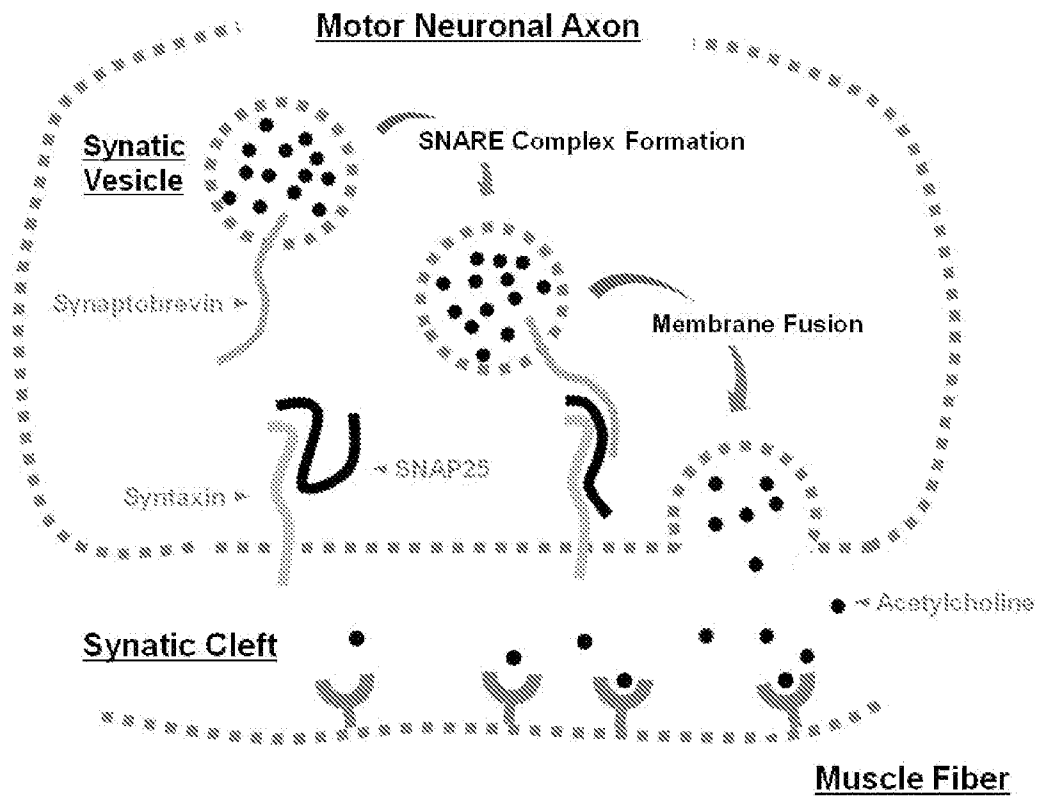
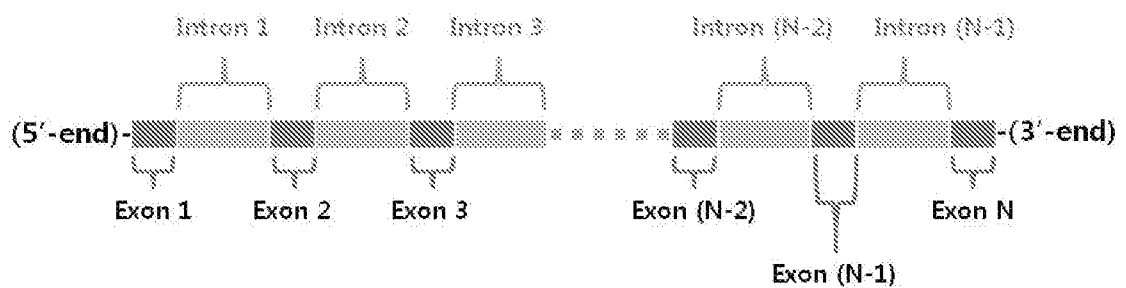


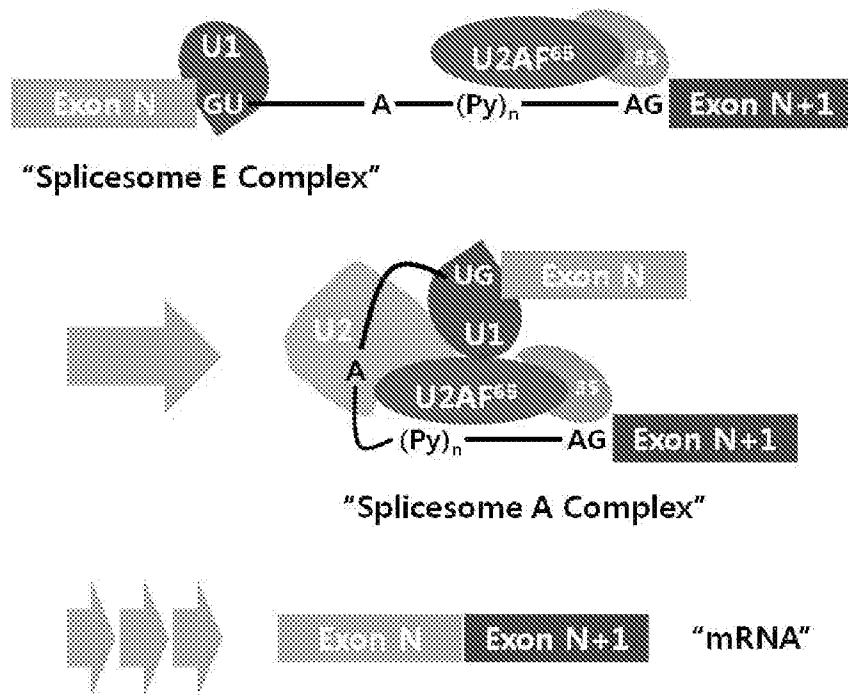
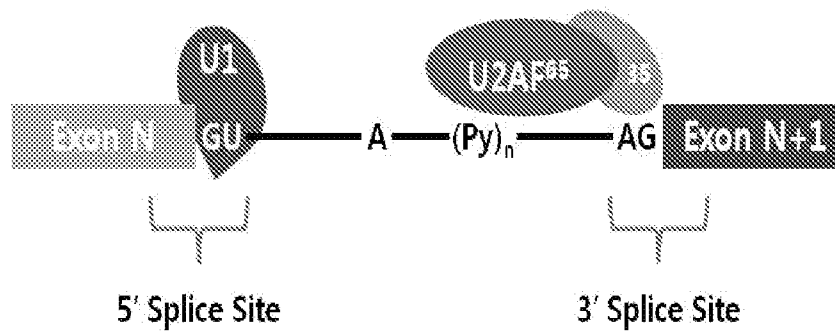
Figure 1B



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Figure 2A**Figure 2B**

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Figure 3A**Figure 3B**"Splicesome E Complex"

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Figure 4A

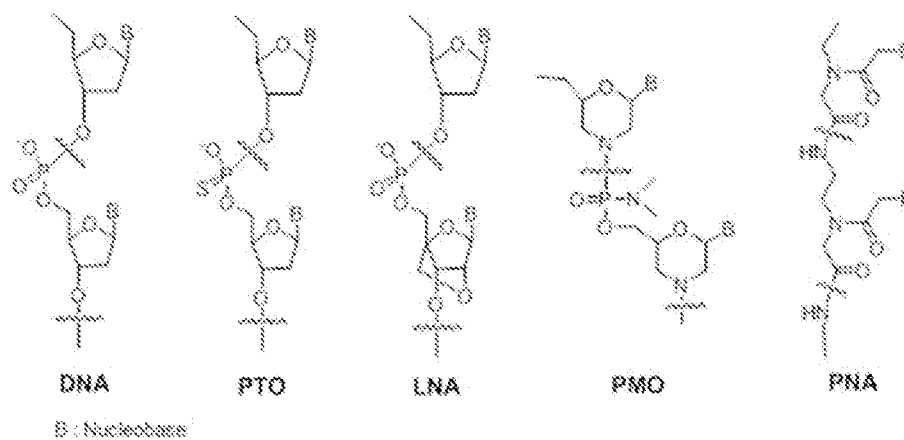


Figure 4B

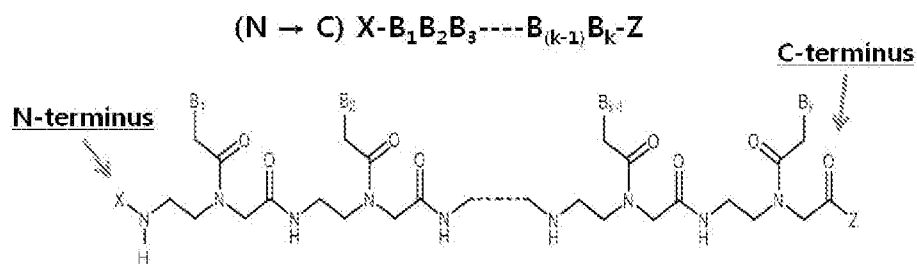


Figure 4C

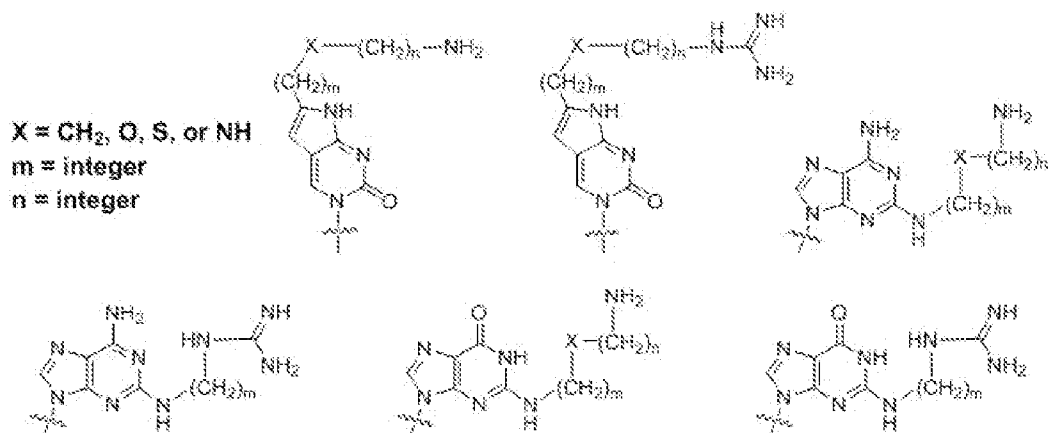
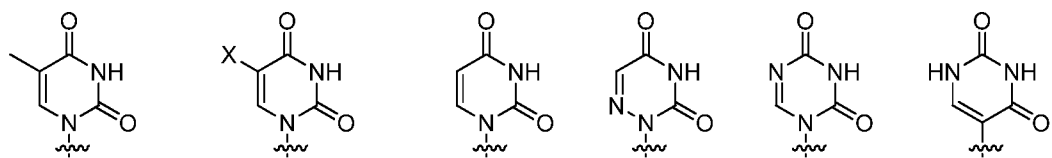


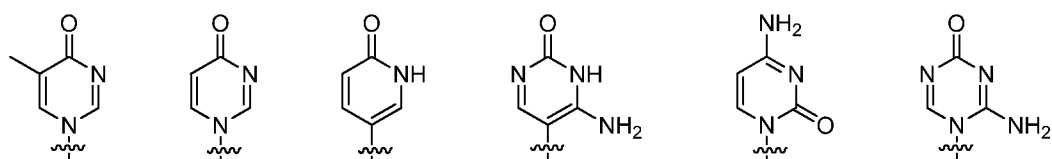
Figure 5



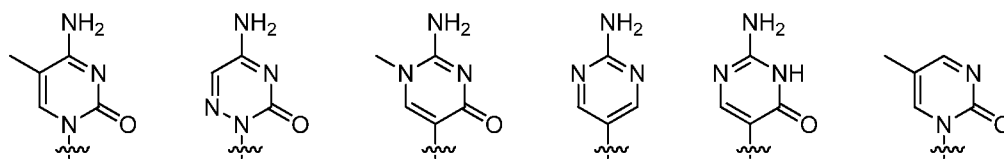
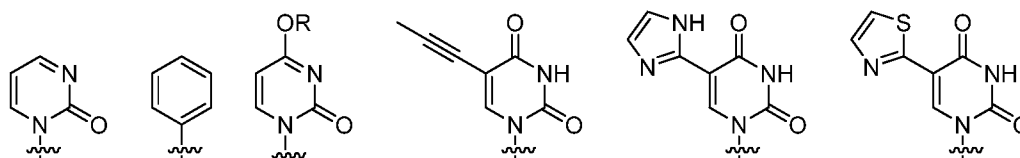
Thymine

X = F, Cl, Br, or I

Uracil



Cytosine



R = alkyl

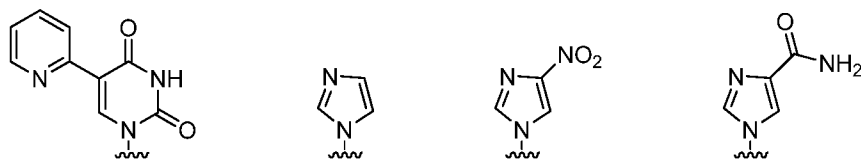


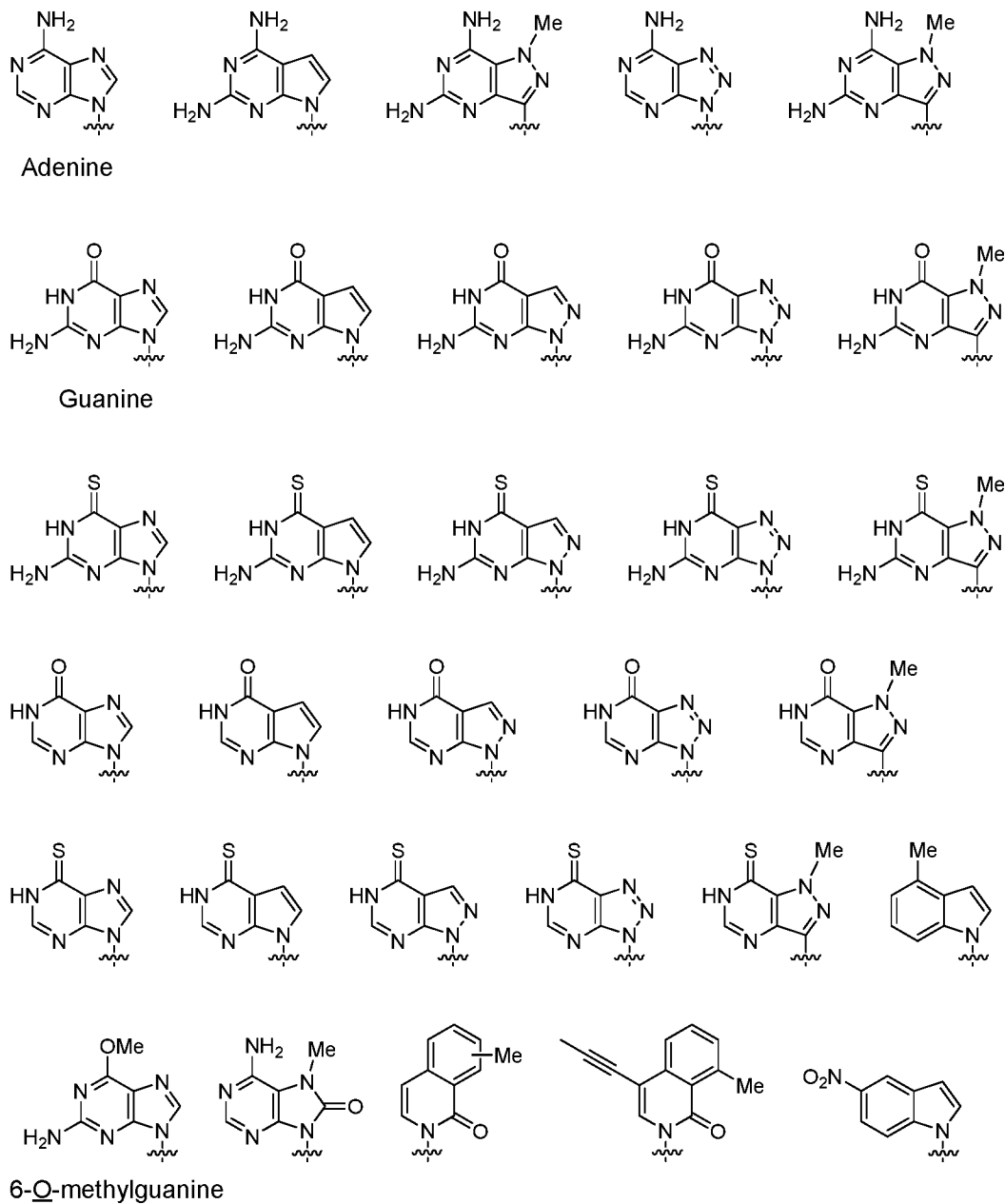
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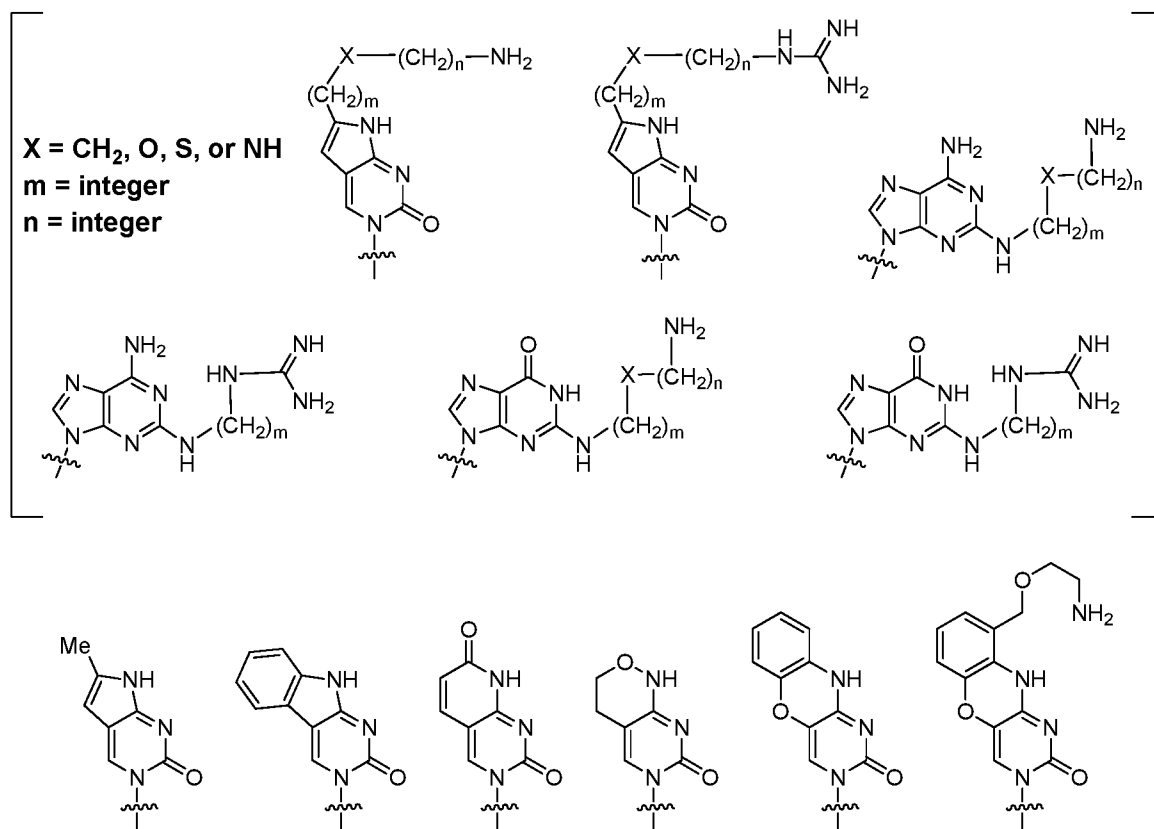
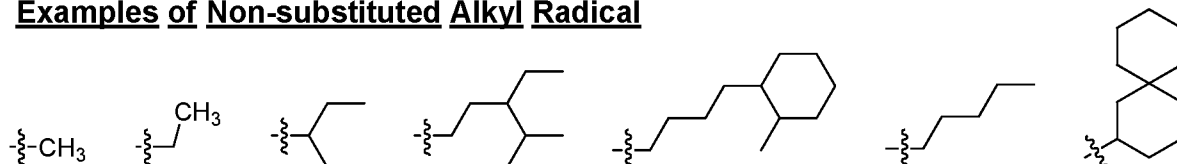
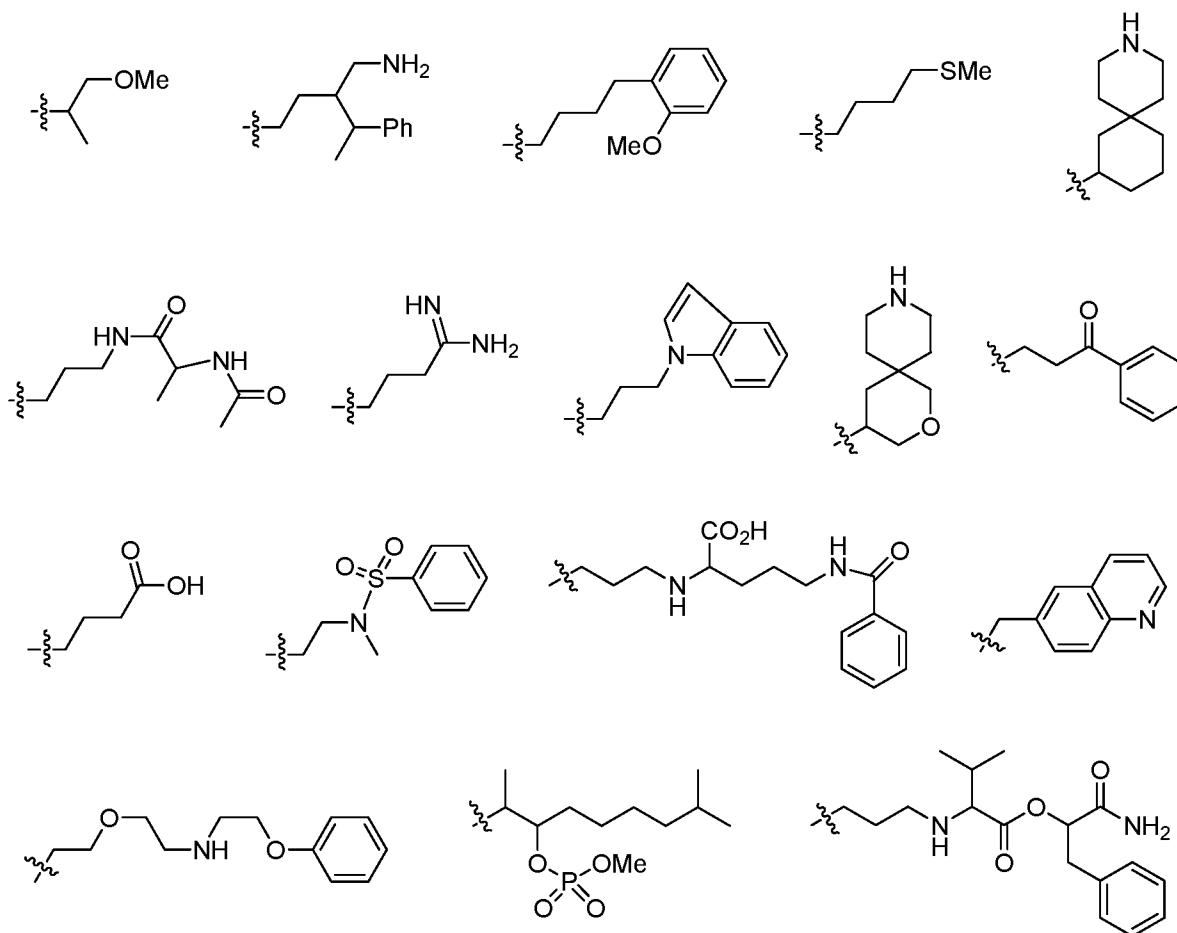
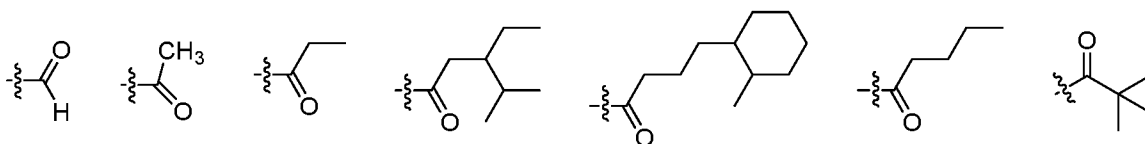
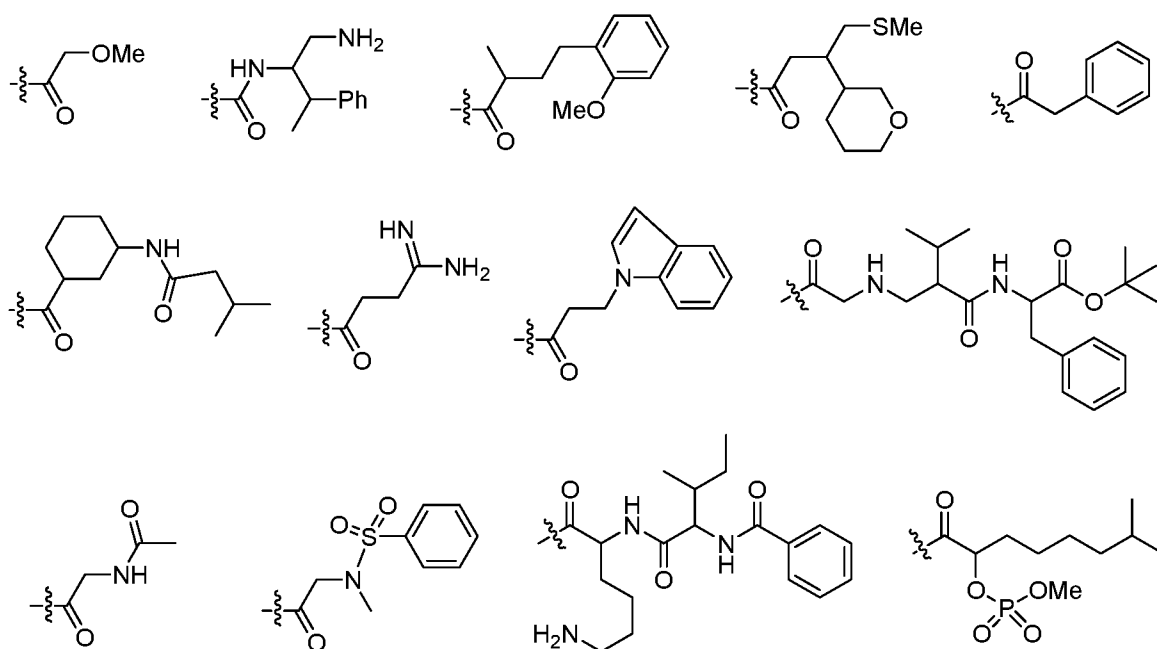
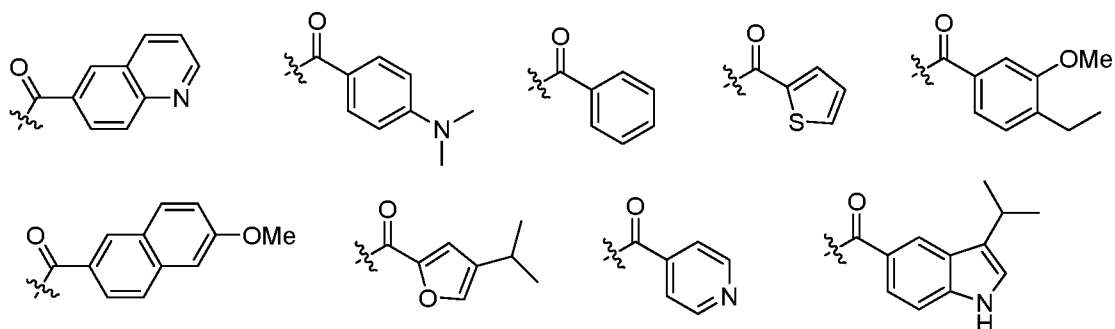
Figure 5 (continued from previous page)

Figure 6A

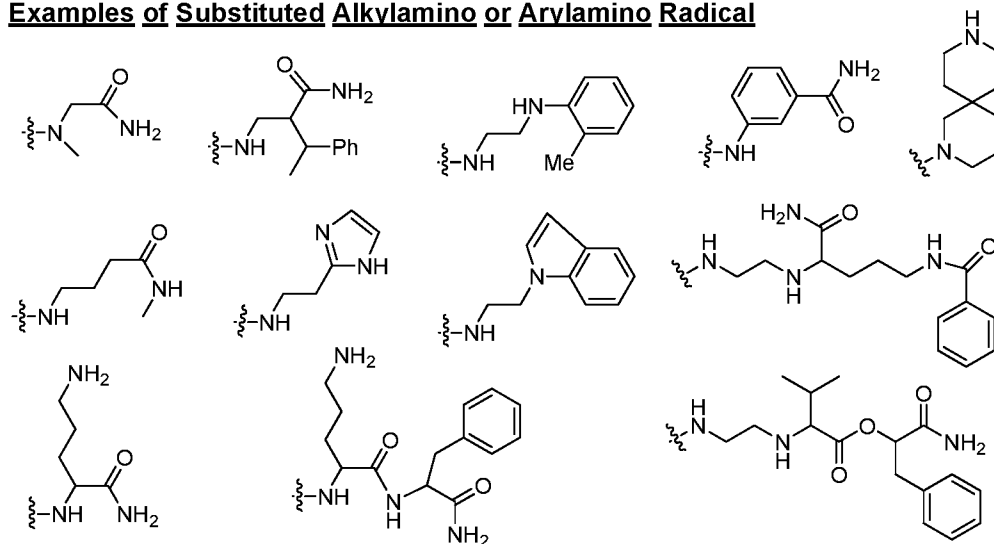
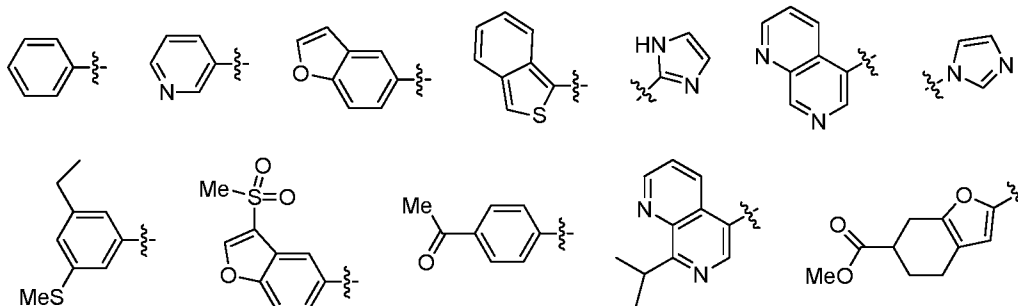
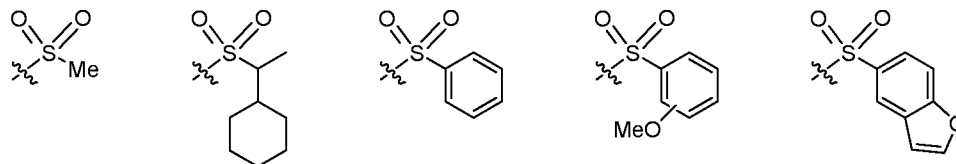
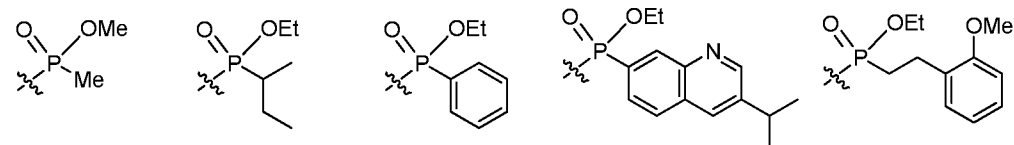
Examples of Non-substituted Alkyl Radical**Examples of Substituted Alkyl Radical**

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Figure 6B**Examples of Non-substituted Alkylacyl Radical****Examples of Substituted Alkylacyl Radical****Examples of Substituted or Non-substituted Arylacyl Radical**

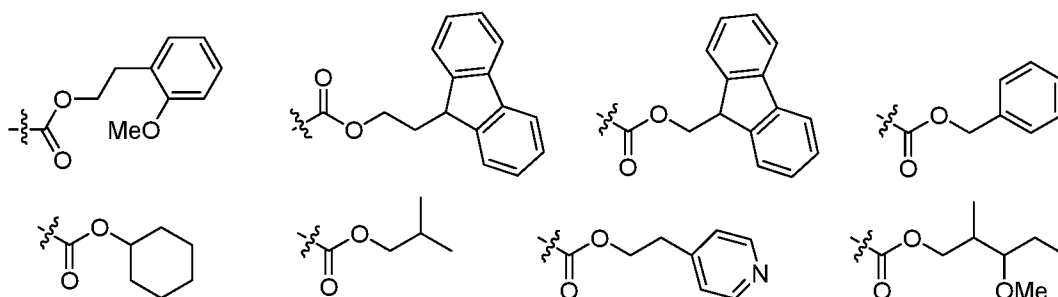
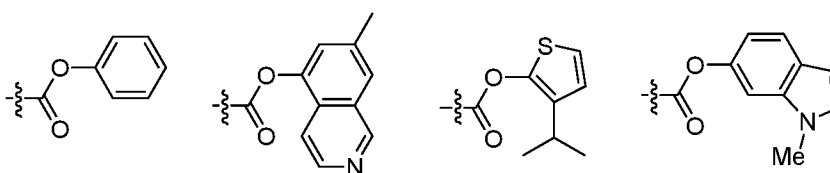
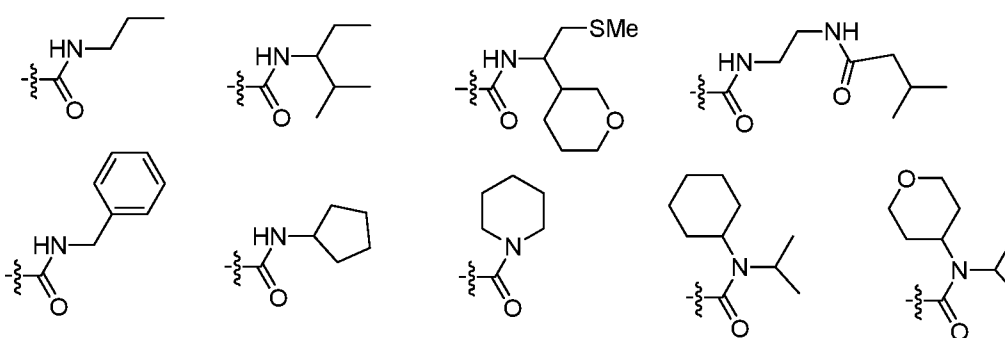
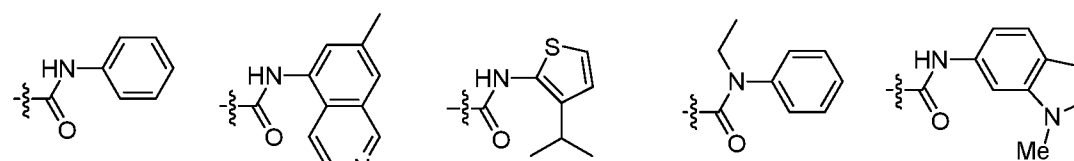
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Figure 6C

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**

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Figure 6D

Examples of Substituted or Non-substituted Alkylloxycarbonyl 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**

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Figure 6E

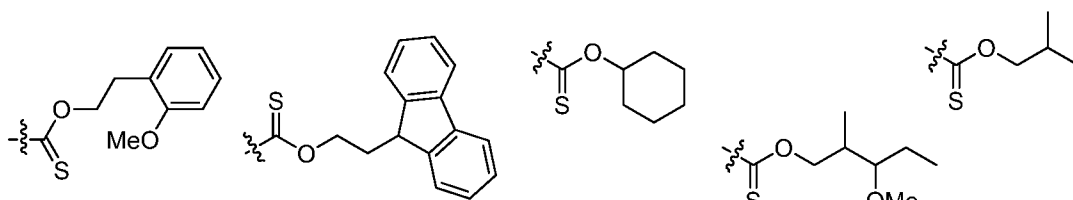
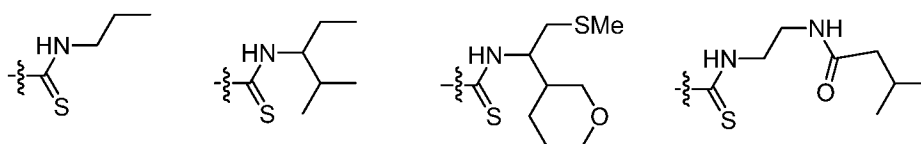
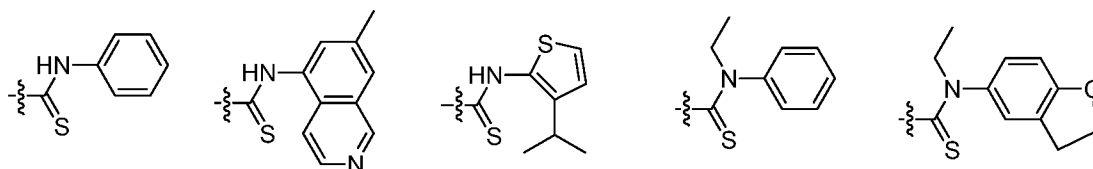
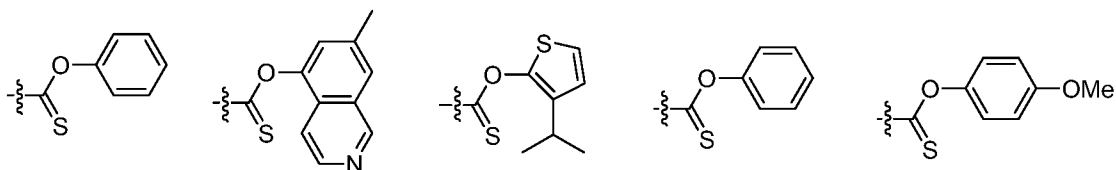
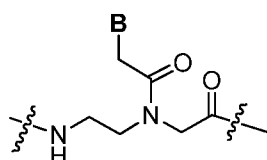
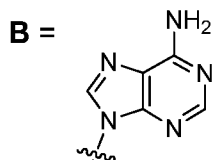
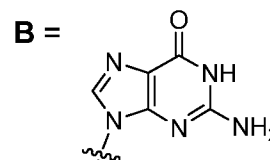
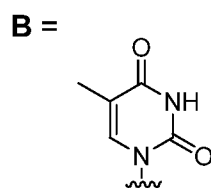
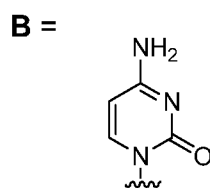
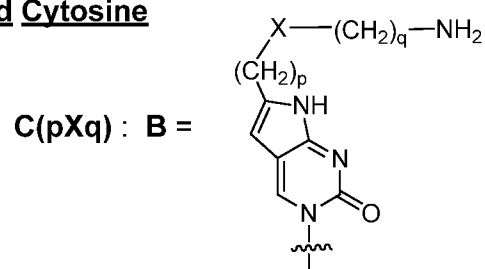
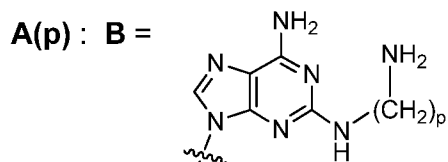
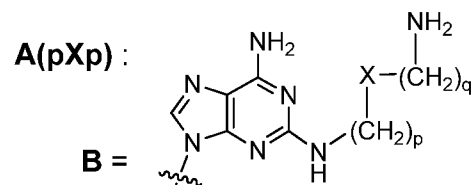
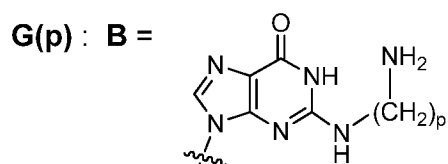
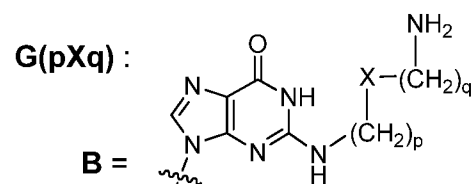
Examples of Substituted or Non-substituted Alkyloxythiocarbonyl Radical**Examples of Substituted or Non-substituted Alkylaminothiocarbonyl Radical****Examples of Substituted or Non-substituted Arylaminothiocarbonyl Radical****Examples of Substituted or Non-substituted Aryloxythiocarbonyl Radical**

Figure 7

PNA Monomer

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

Adenine**Guanine****Thymine****Cytosine****Modified Cytosine****Modified Adenine****Modified Guanine**

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Figure 8

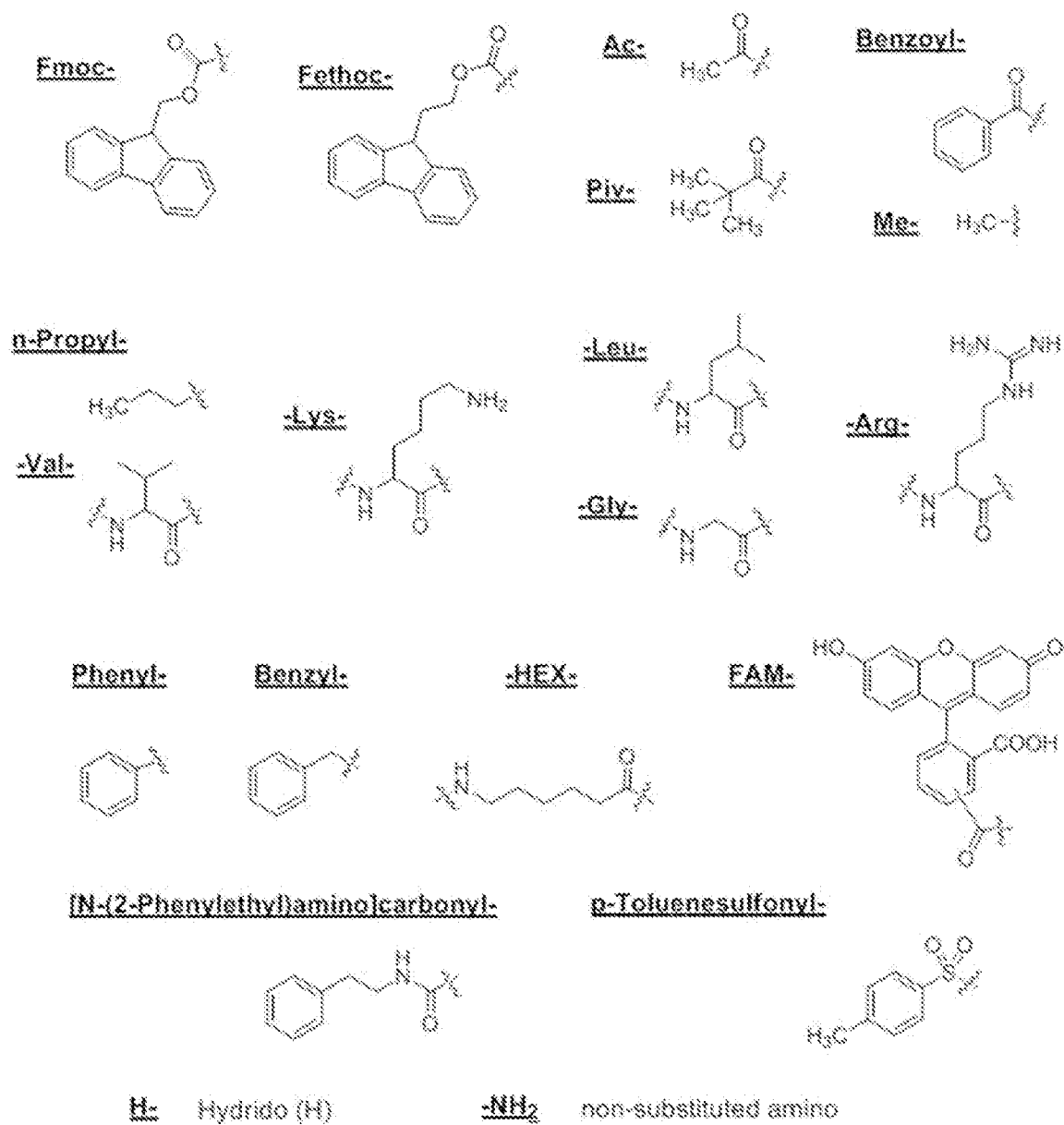
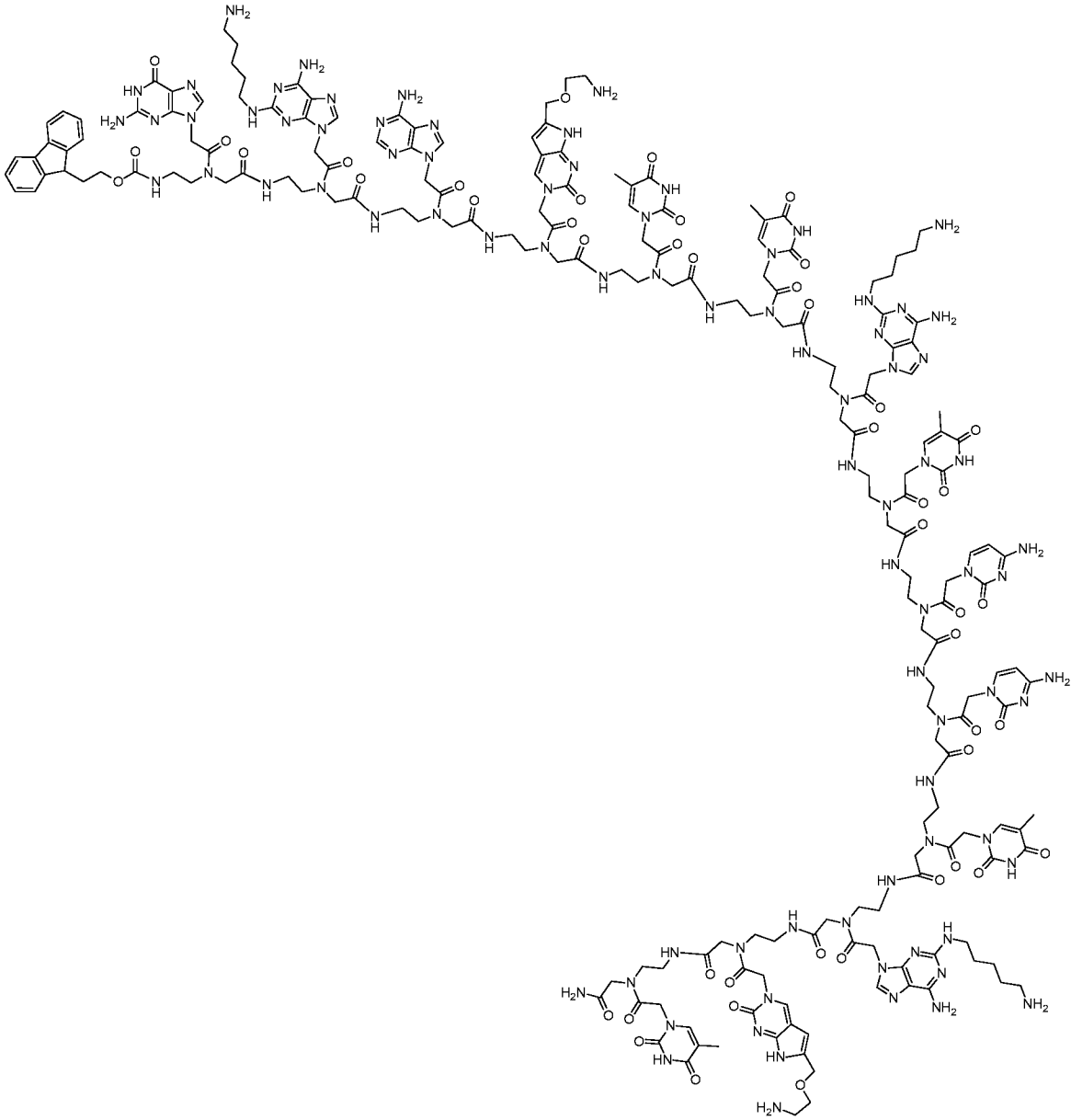
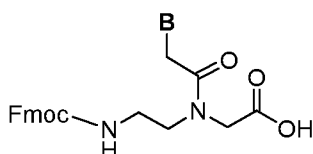
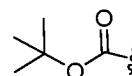
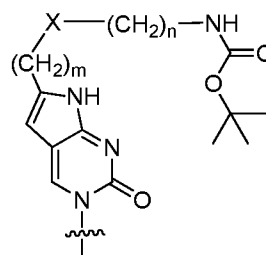
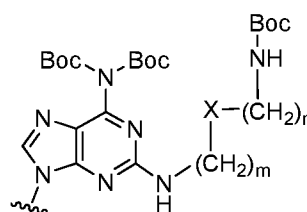
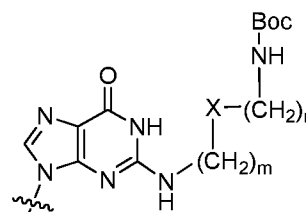


Figure 9

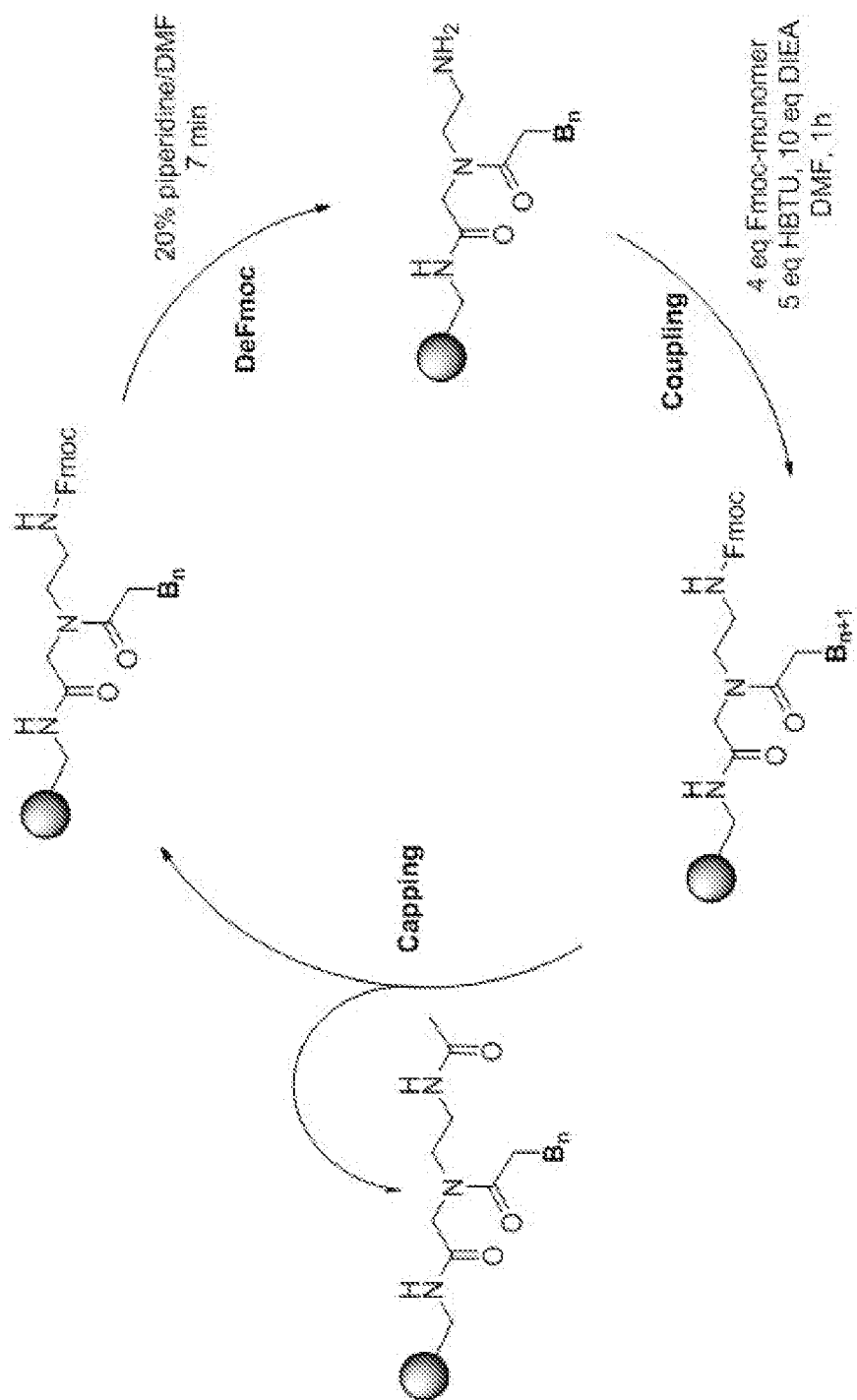


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Figure 11**Fmoc-PNA Monomer****B** : Nucleobase with protecting group(s)**X** : methylene, oxygen, sulfur, or Boc-protected amino**m** : Integer**n** : Integer**Boc-****Modified Cytosine****C(mXn) : B =****Modified Adenine****A(mXn) :****B =****Modified Guanine****G(mXn) :****B =**

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Figure 12



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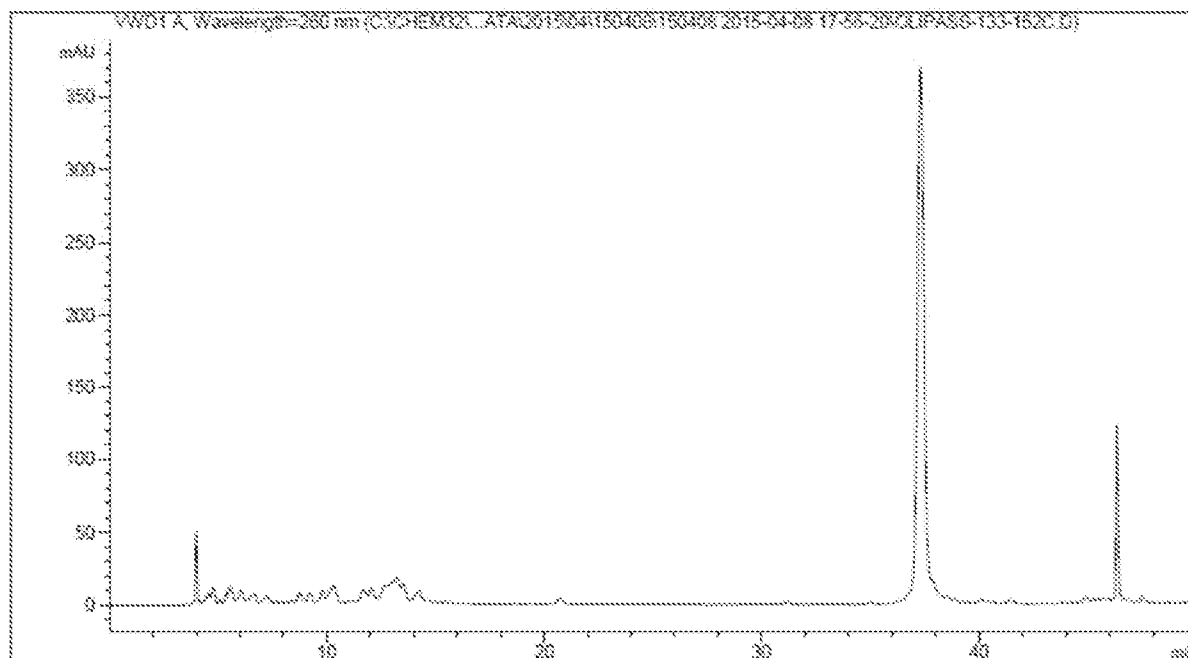
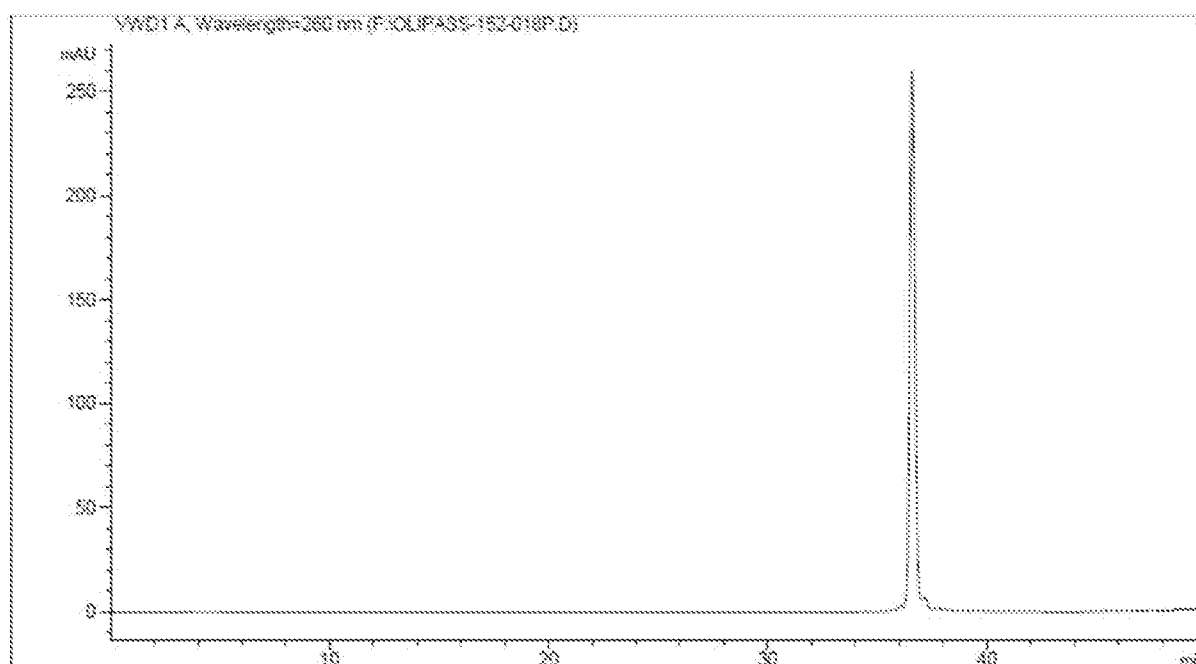
Figure 13A**Figure 13B**

Figure 14

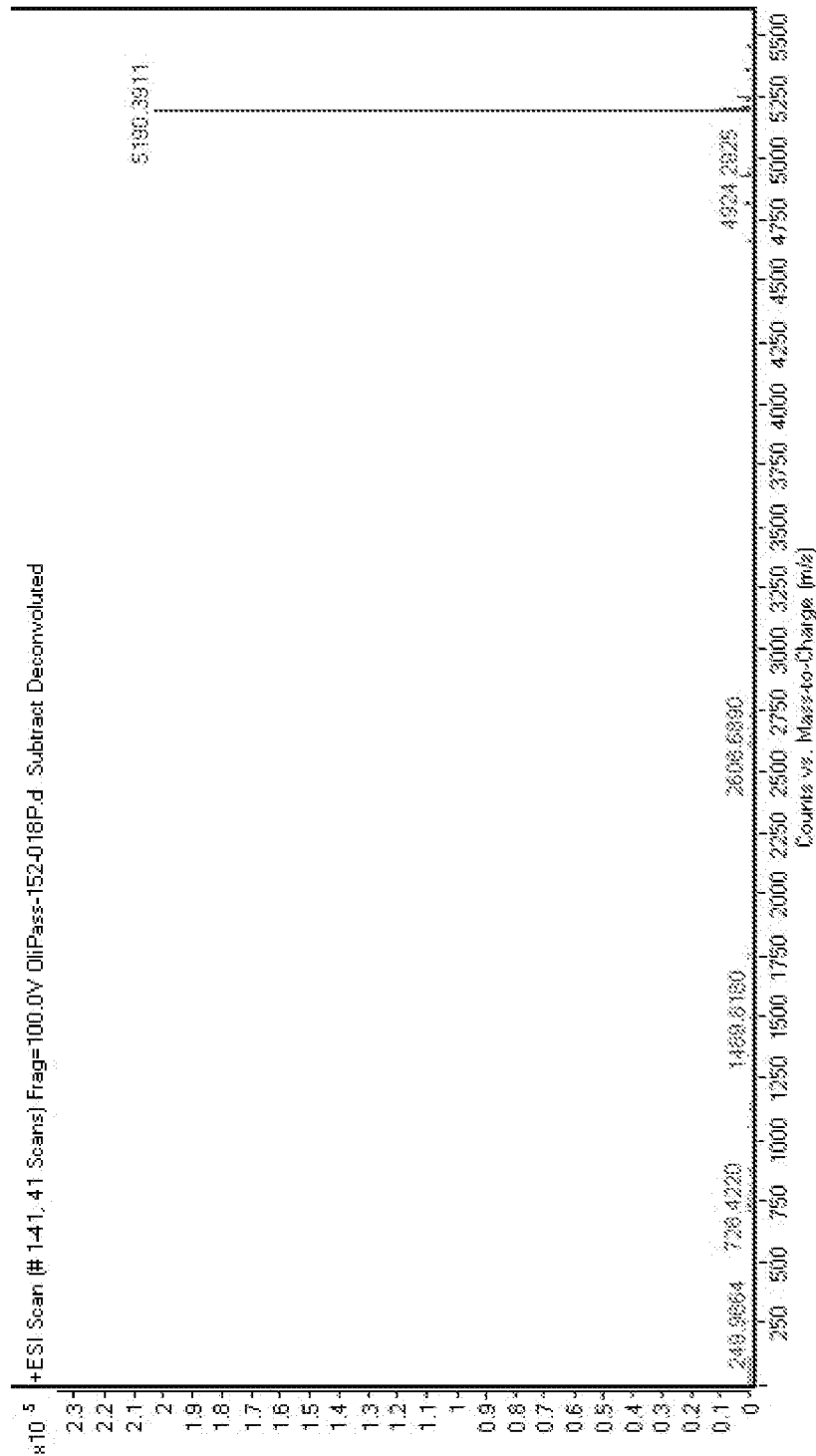


Figure 15A

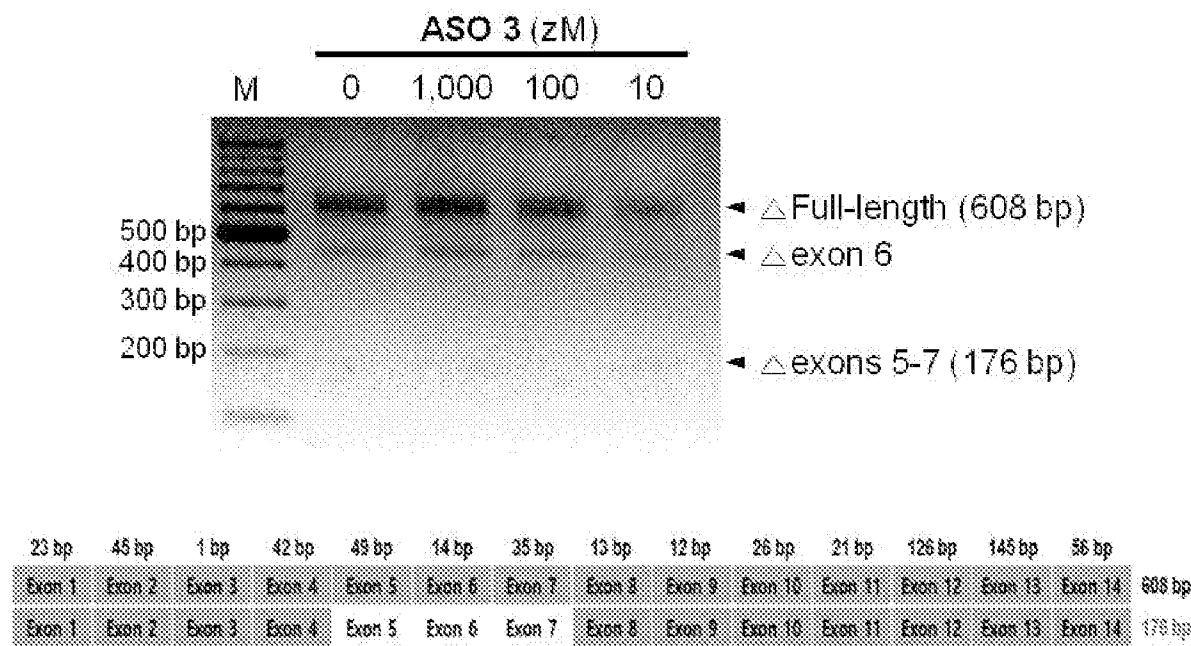


Figure 15B

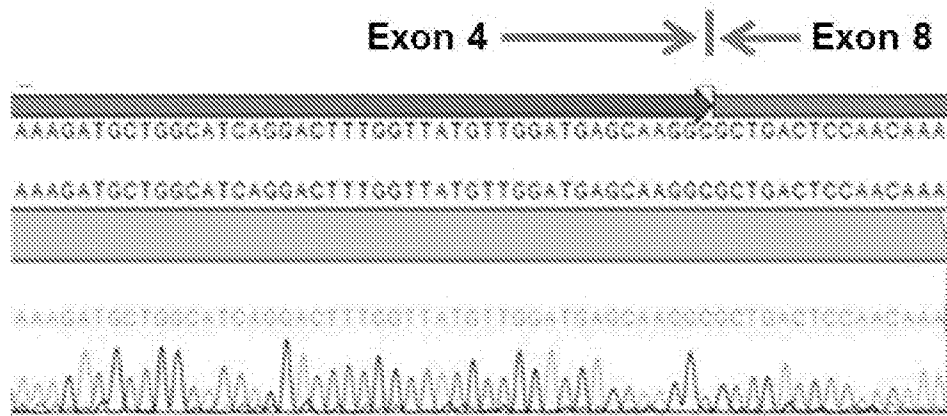


Figure 16A

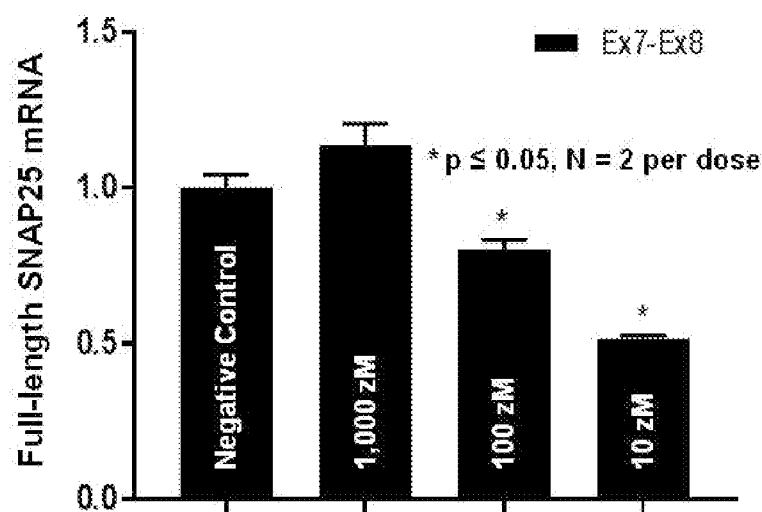


Figure 16B

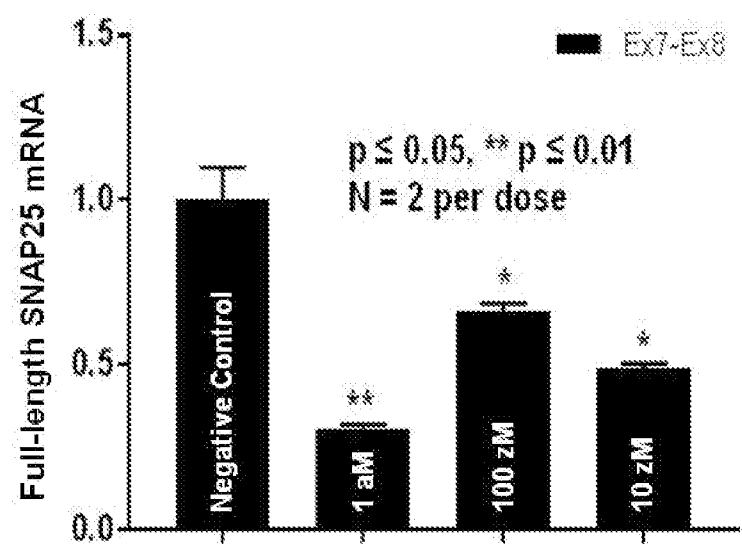


Figure 17A

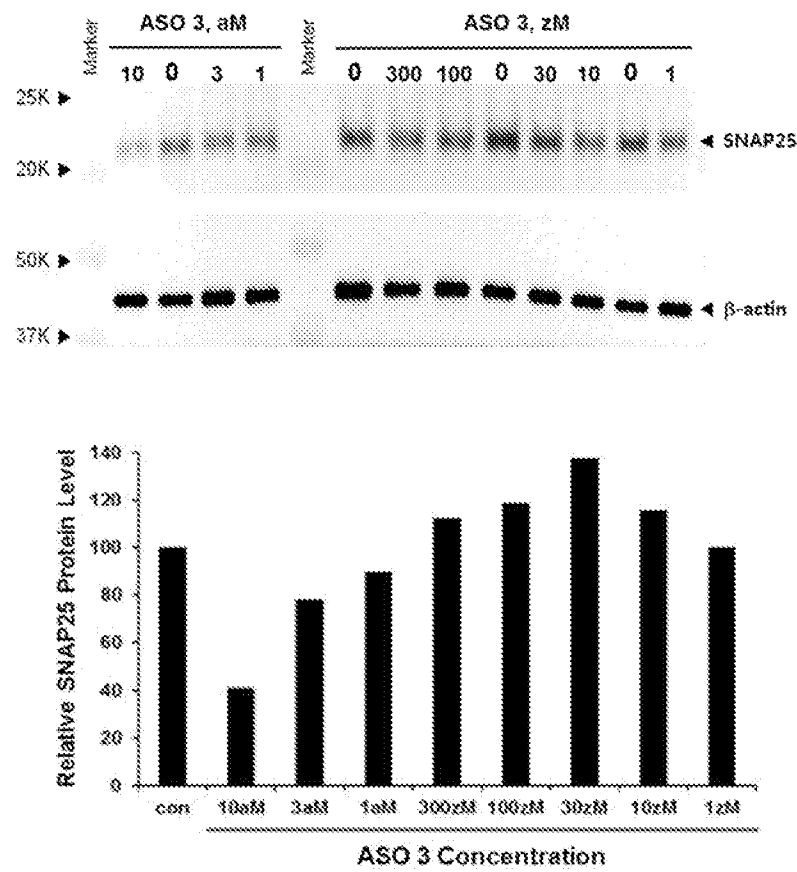


Figure 17B

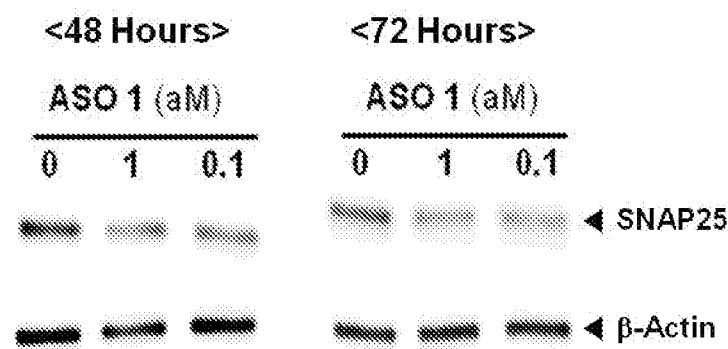


Figure 18

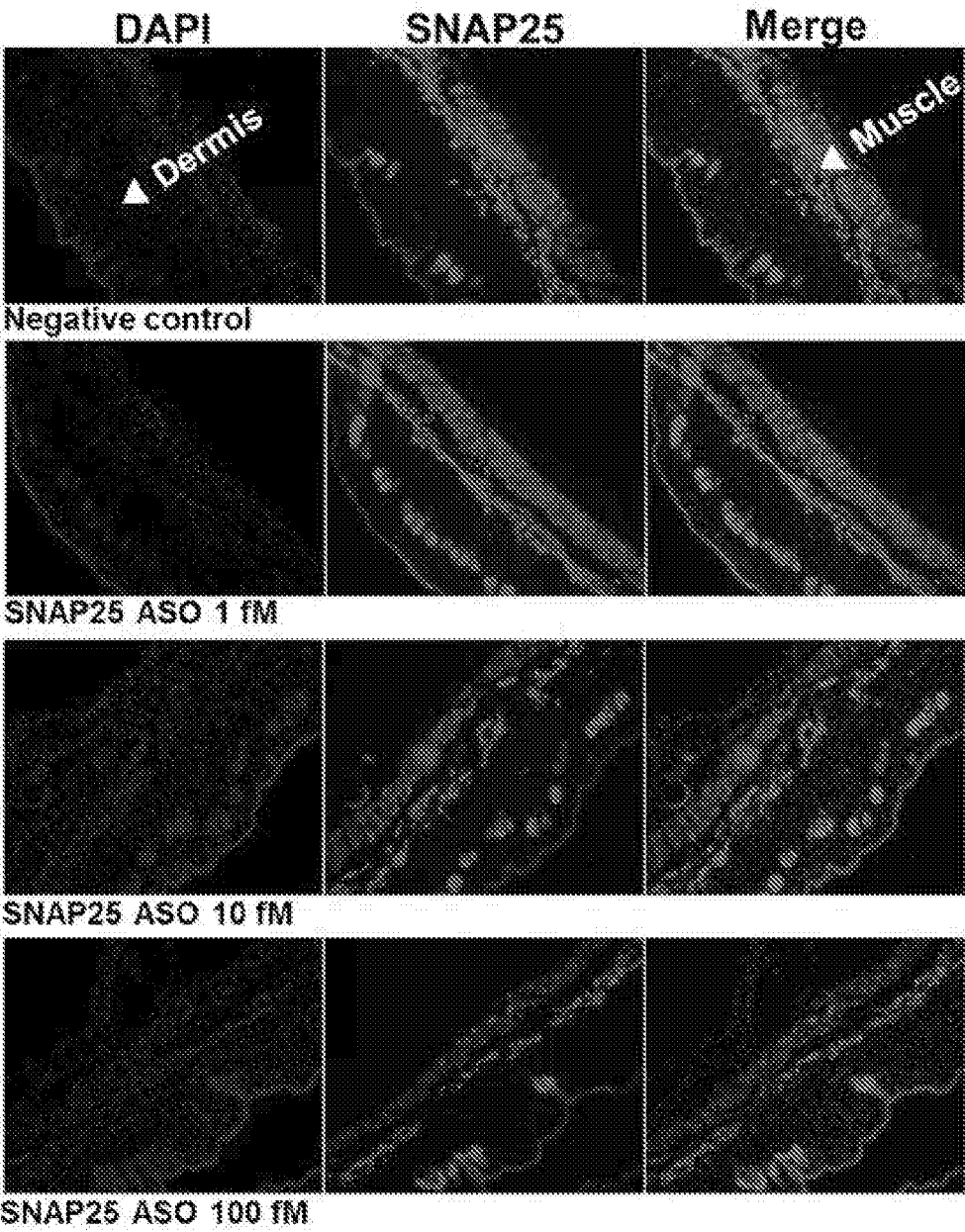


Figure 19A

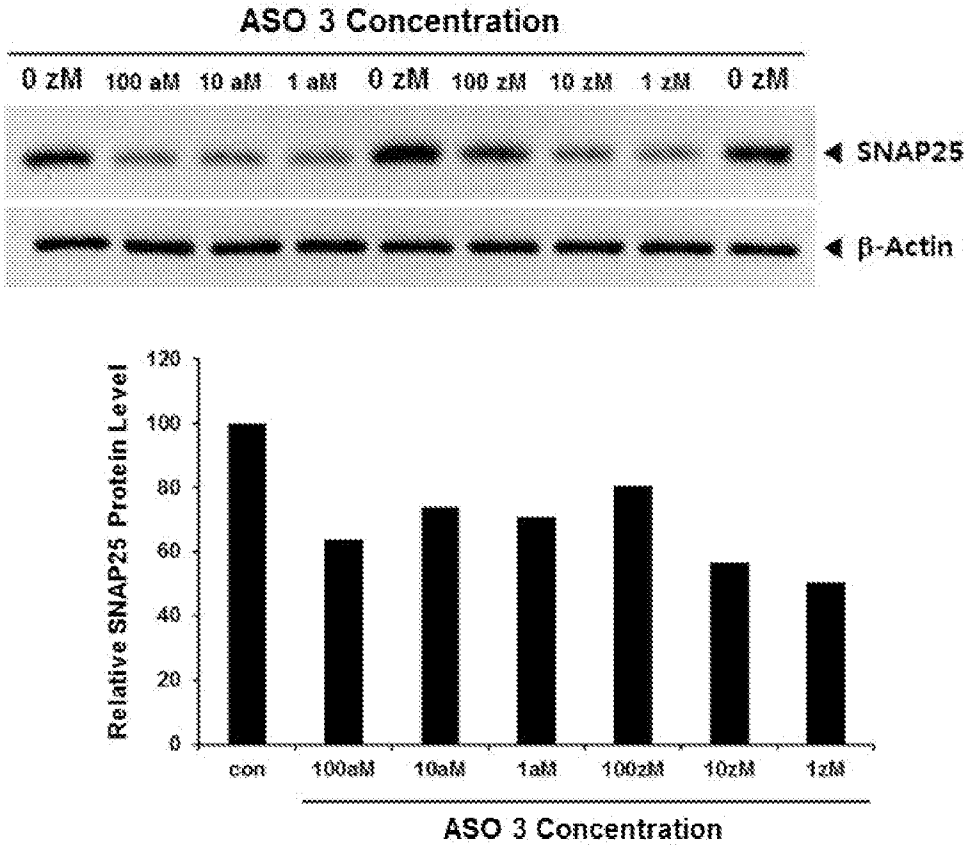


Figure 19B

