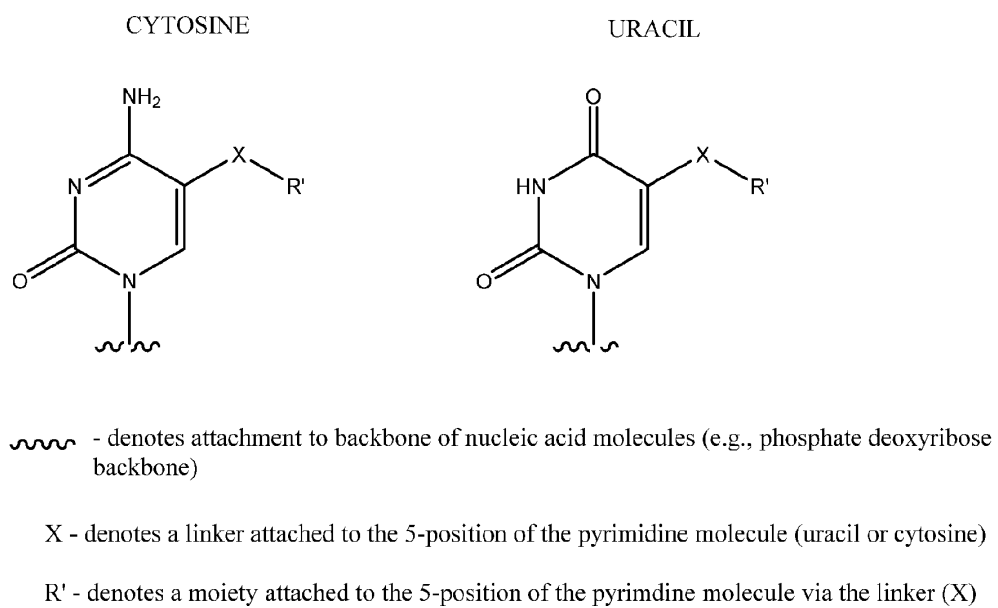


**FIG. 1**

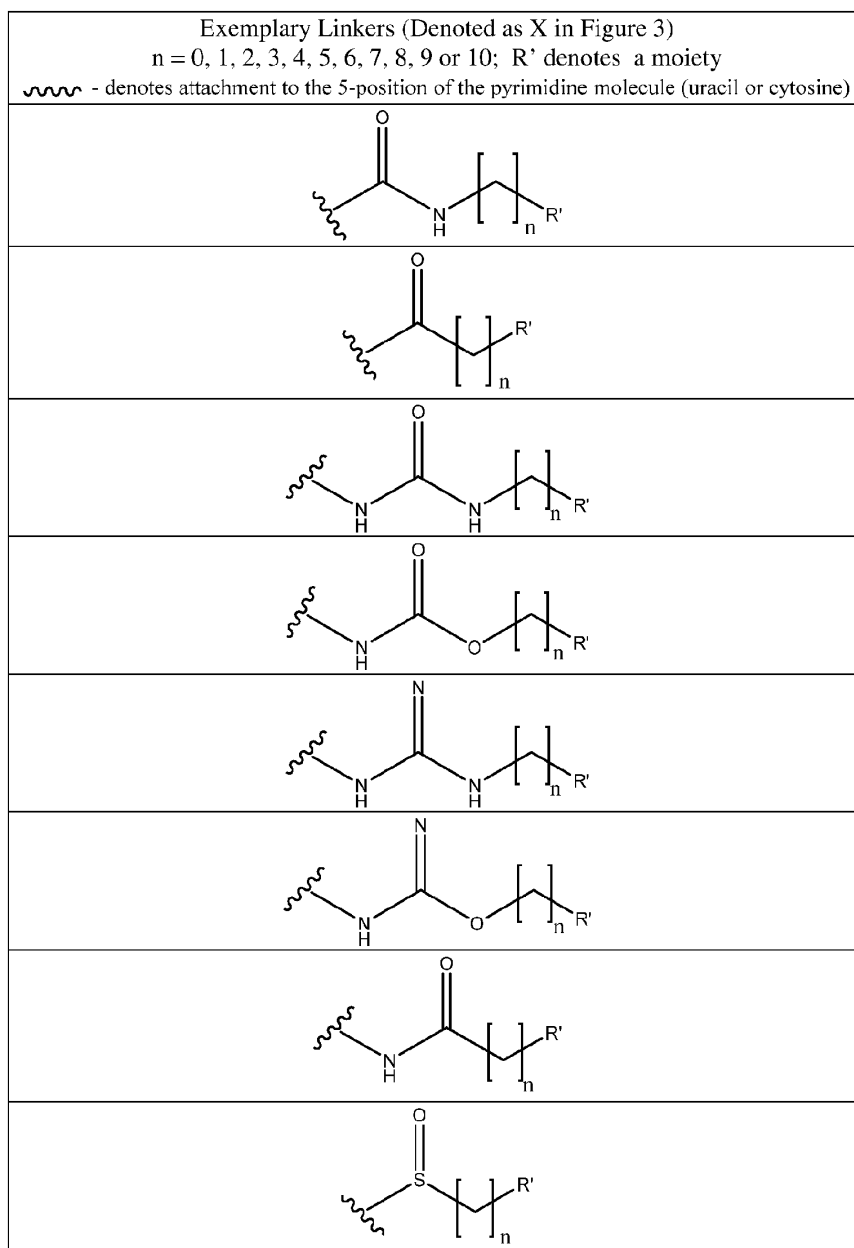


FIG. 1 (cont.)

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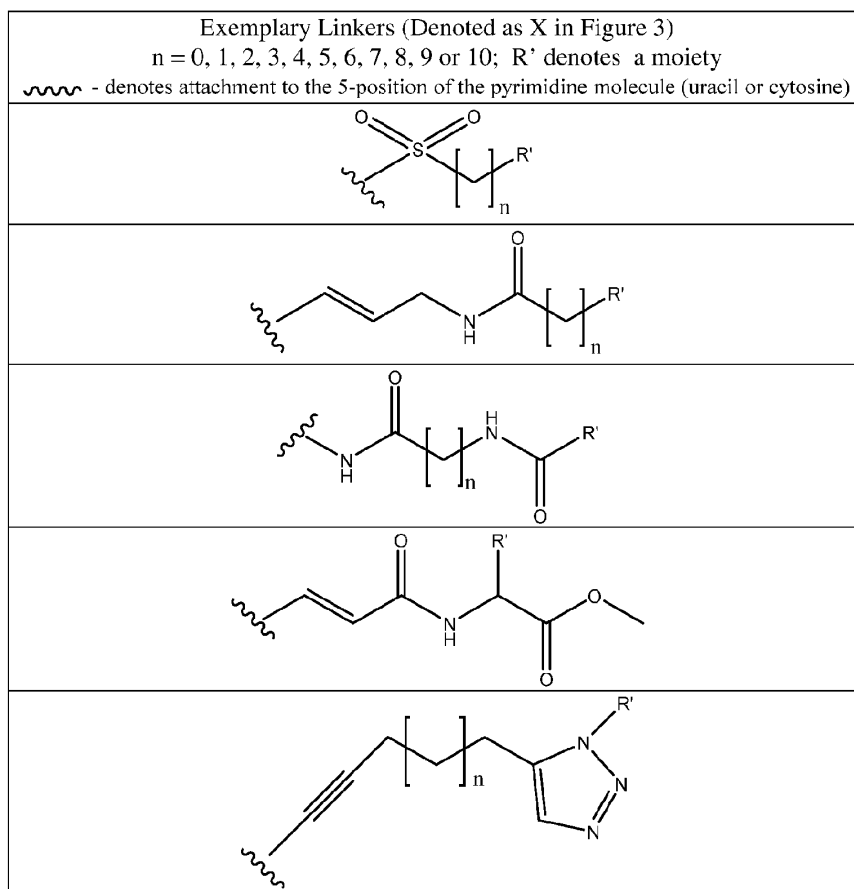


FIG. 1 (cont.)

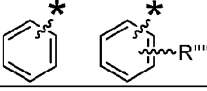
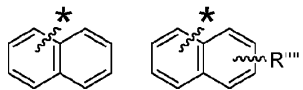
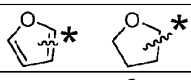
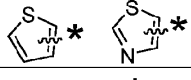
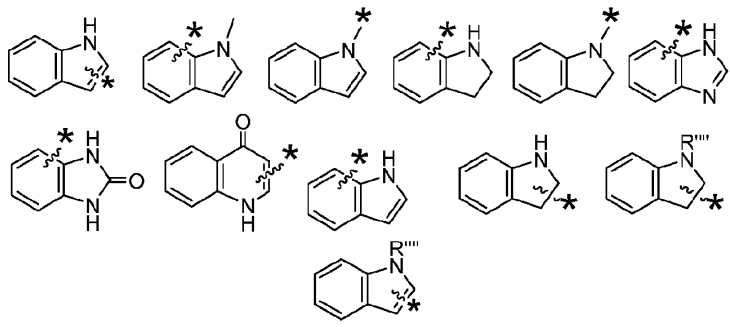
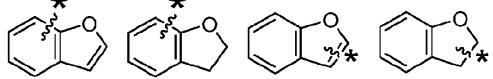
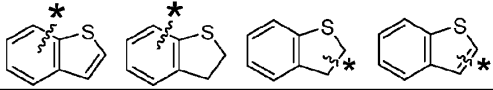
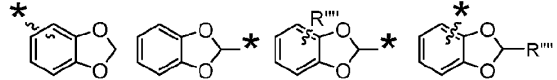
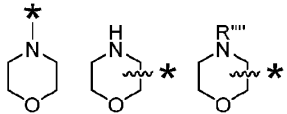
Group	R' Structures (* denotes the point of attachment of the R' group to X (linker))
I	
II	
III	
IV	
V	
VI	
VII	
VIII	
IX	
X	

FIG. 1 (cont.)

Group	R' Structures (* denotes the point of attachment of the R' group to X (linker))
XI	
XII	
XIII	$^*\text{-CH}_3$ $\text{H}_3\text{C}-\overset{\text{*}}{\underset{\text{CH}_3}{\text{C}}}-\text{H}$ $\text{H}_3\text{C}-\overset{\text{*}}{\underset{\text{H}_3\text{C}-\text{CH}_2}{\text{C}}}-\text{H}$ $\text{H}_3\text{C}-\overset{\text{*}}{\underset{\text{H}_3\text{C}}{\text{C}}}-\text{CH}_3$
XIV	$^*\text{-}\overset{\text{OH}}{\underset{\text{H}_2}{\text{C}}}$ $^*\text{-}\overset{\text{OH}}{\underset{\text{CH}_3}{\text{C}}}$ $^*\text{-}\overset{\text{OH}}{\underset{\text{H}_3\text{C}}{\text{C}}}$
XV	$^*\text{-}\overset{\text{OR}''}{\underset{\text{H}_2}{\text{C}}}$ $^*\text{-}\overset{\text{OR}''}{\underset{\text{CH}_3}{\text{C}}}$ $^*\text{-}\overset{\text{OR}''}{\underset{\text{H}_3\text{C}}{\text{C}}}$ $^*\text{-}\text{CH}_2\text{CH}_2\text{OCH}_2\text{CH}_2\text{CH}_3$
XVI	$^*\text{-}\overset{\text{SR}''}{\underset{\text{CH}_2}{\text{C}}}$ $^*\text{-}\overset{\text{SR}''}{\underset{\text{CH}_3}{\text{C}}}$ $^*\text{-}\overset{\text{SR}''}{\underset{\text{H}_3\text{C}}{\text{C}}}$
XVII	$^*\text{-}\overset{\text{R}''}{\underset{\text{H}_2}{\text{C}}}-\overset{\text{R}''}{\underset{\text{R}''}{\text{N}^+}}$ $^*\text{-}\overset{\text{R}''}{\underset{\text{CH}_3}{\text{C}}}-\overset{\text{R}''}{\underset{\text{R}''}{\text{N}^+}}$ $^*\text{-}\overset{\text{R}''}{\underset{\text{H}_3\text{C}}{\text{C}}}-\overset{\text{R}''}{\underset{\text{R}''}{\text{N}^+}}$
XVIII	$^*\text{-}\overset{\text{O}}{\underset{\text{OH}}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{O}}{\underset{\text{OR}''}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{O}}{\underset{\text{NH}_2}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{O}}{\underset{\text{NHR}''}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{O}}{\underset{\text{NR}''\text{R}'''}{\text{C}}}=\text{O}$
XIX	$^*\text{-}\overset{\text{N}}{\underset{\text{NH}_2}{\text{C}}}=\text{N}$ $^*\text{-}\overset{\text{N}}{\underset{\text{NHR}''}{\text{C}}}=\text{N}$ $^*\text{-}\overset{\text{N}}{\underset{\text{NR}''\text{R}'''}{\text{C}}}=\text{N}$ $^*\text{-}\overset{\text{NR}''}{\underset{\text{NHR}''}{\text{C}}}=\text{N}$ $^*\text{-}\overset{\text{NR}''}{\underset{\text{NR}''\text{R}'''}{\text{C}}}=\text{N}$
XX	$^*\text{-}\overset{\text{O}}{\underset{\text{CH}}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{O}}{\underset{\text{CH}_3}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{NOH}}{\underset{\text{H}}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{NOH}}{\underset{\text{CH}_3}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{NOR}''}{\underset{\text{CH}}{\text{C}}}=\text{O}$ $^*\text{-}\overset{\text{NOR}''}{\underset{\text{CH}_3}{\text{C}}}=\text{O}$

R'' and R''' are, independently, selected from a halogen (-F, -Cl, -Br, -I); nitrile (-CN); -NH₂; -OH; branched lower alkyl (C1-C20); linear lower alkyl (C1-C20); primary amide; secondary amide; tertiary amide; alkoxy group.

FIG. 1 (cont.)

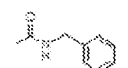
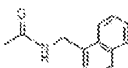
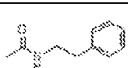
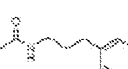
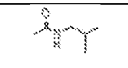
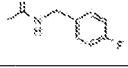
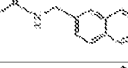
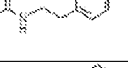
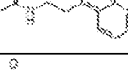
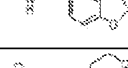
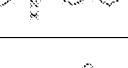
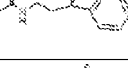
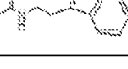
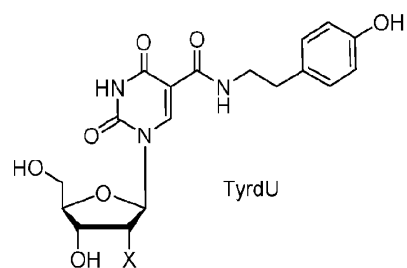
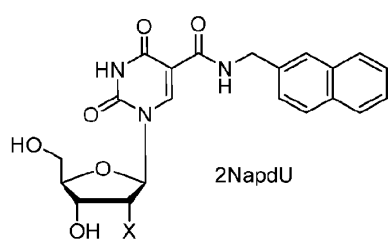
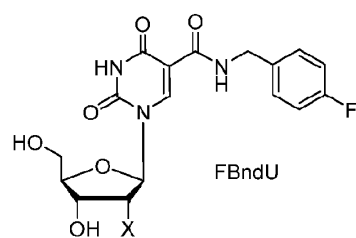
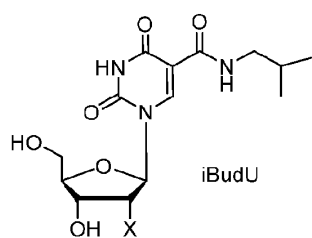
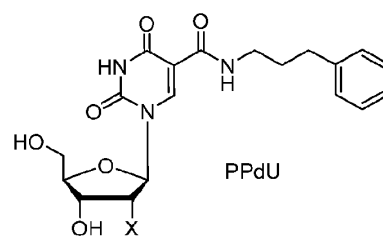
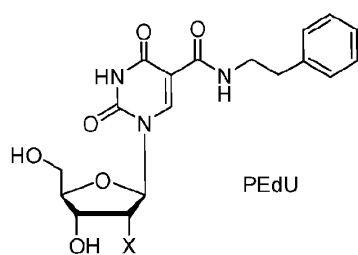
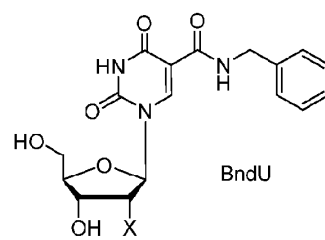
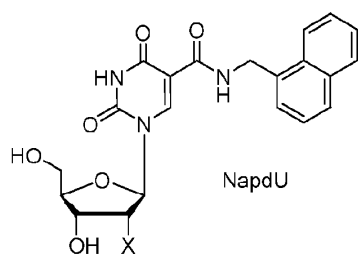
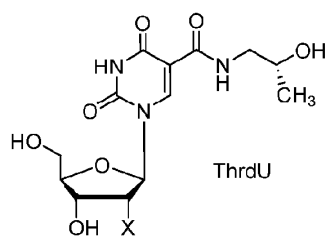
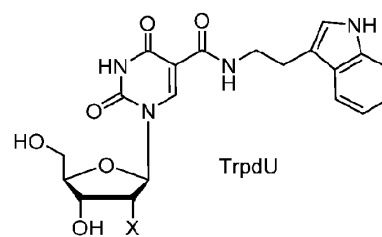
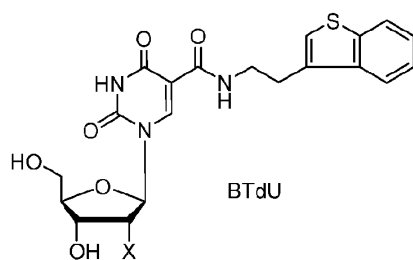
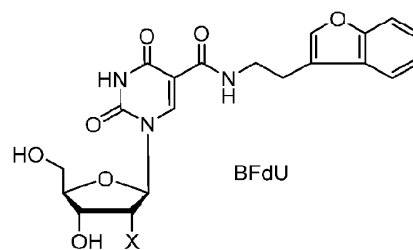
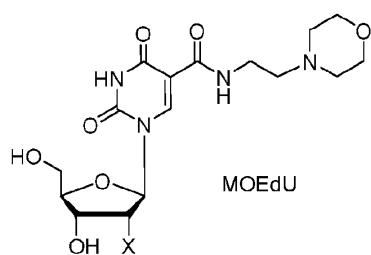
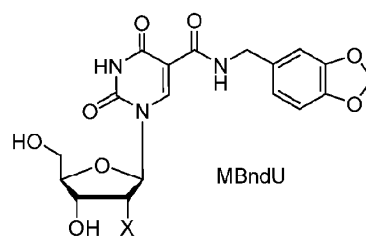
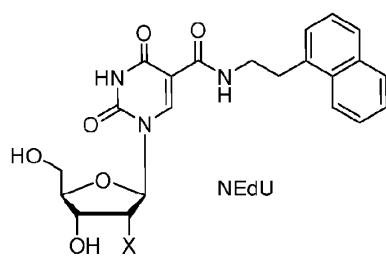
Abbreviation	5-dU Modification Attached via Amide Linkage	Chemical Structure
Bn	benzylmethyl	
Nap	1-naphthylmethyl	
PE	2-phenylethyl	
PP	3-phenylpropyl	
iBu	iso-butyl	
FBn	4-fluorobenzylmethyl	
2Nap	2-naphthylmethyl	
Tyr	tyrosyl	
NE	1-naphthylethyl	
MBn	3,4-methylenedioxy benzyl	
MOE	morpholinoethyl	
BF	3-benzofuranylethyl	
BT	3-benzothiophenylethyl	
Trp	3-indole-2-ethyl	
Thr	(R)-2-hydroxypropyl	

FIG. 2

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**FIG. 2 (cont.)**

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**FIG. 2 (cont.)**

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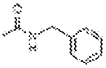
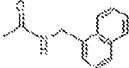
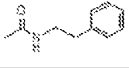
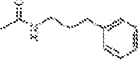
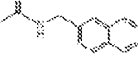
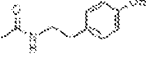
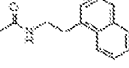
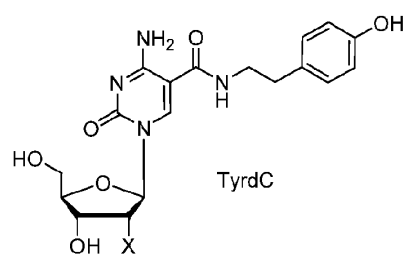
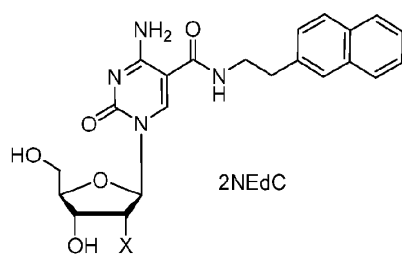
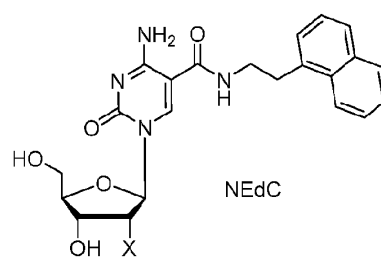
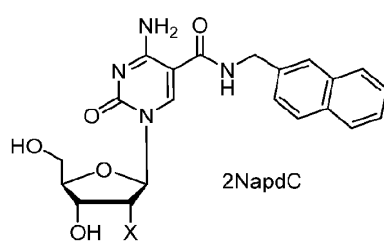
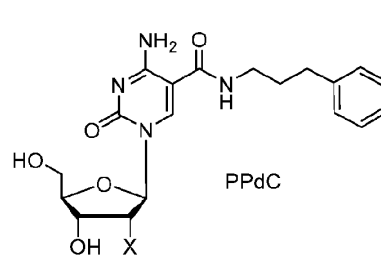
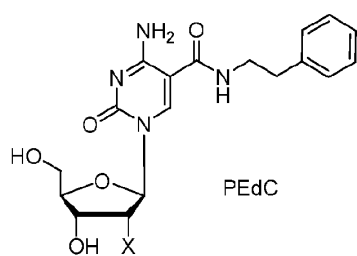
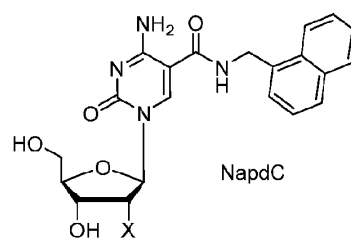
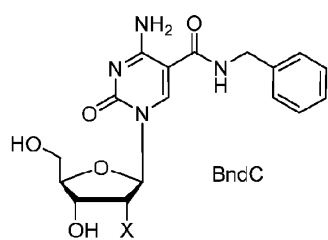
Abbreviation	5-dC Modification Attached via Amide Linkage	Chemical Structure
Bn	benzylmethyl	
Nap	<i>1</i> -naphthylmethyl	
PE	2-phenylethyl	
PP	3-phenylpropyl	
2Nap	2-naphthylmethyl	
Tyr	tyrosyl	
NE	<i>1</i> -naphthylethyl	
2NE	2-naphthyl-2-ethyl	

FIG. 3

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**FIG. 3 (cont.)**

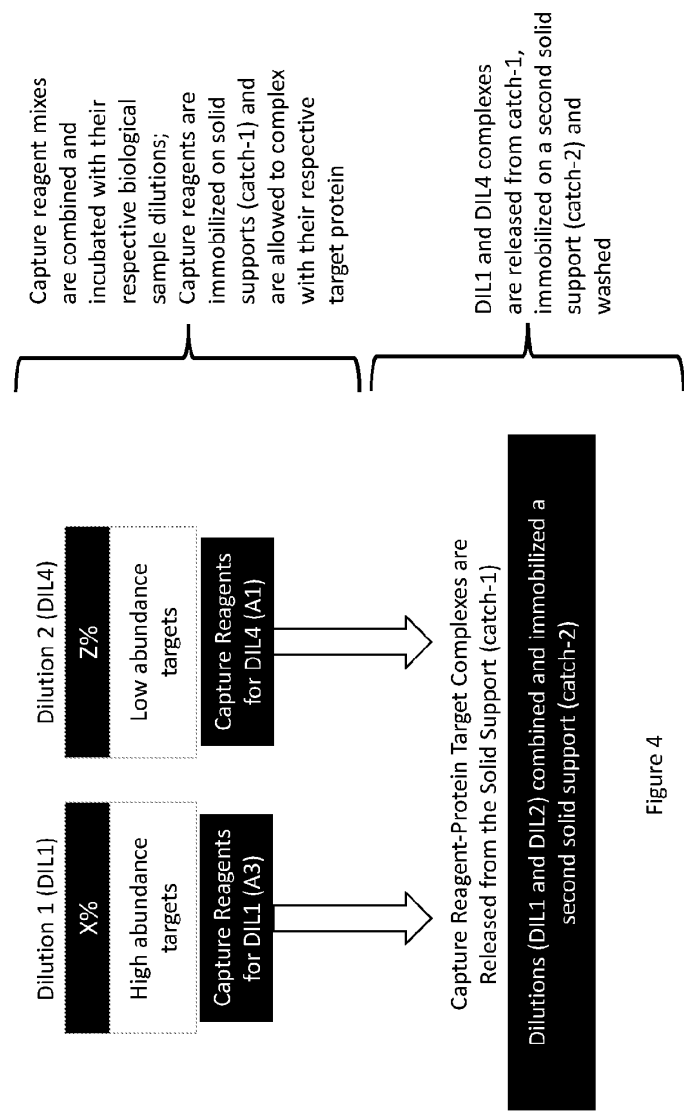


Figure 4

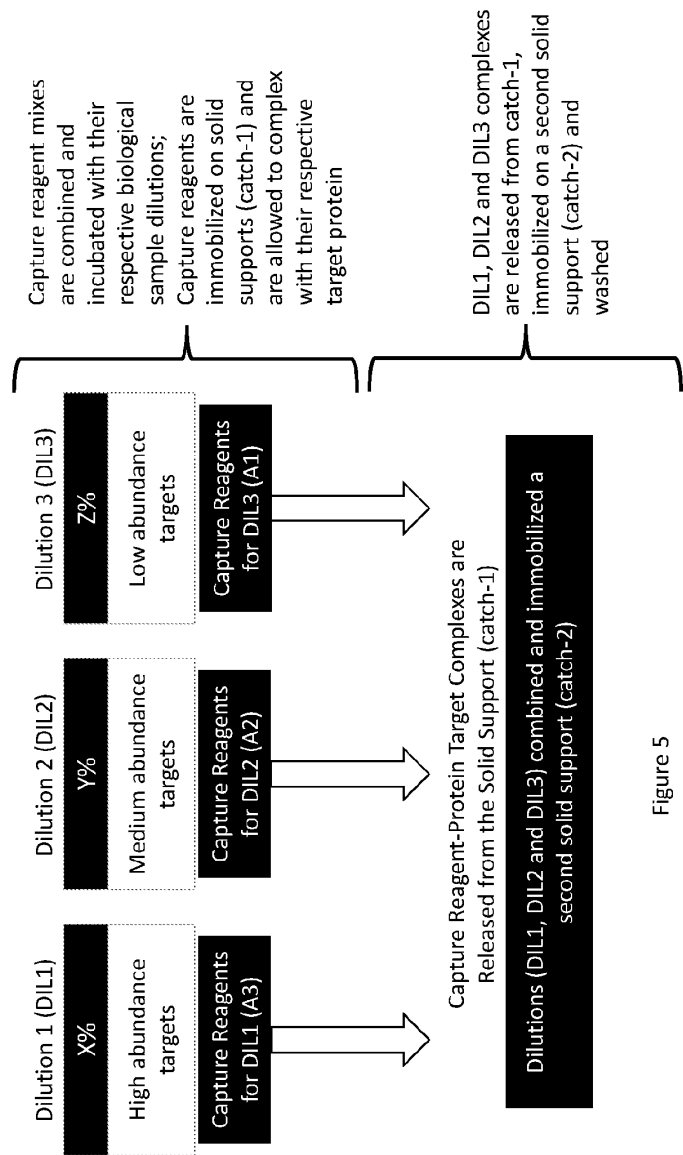


Figure 5

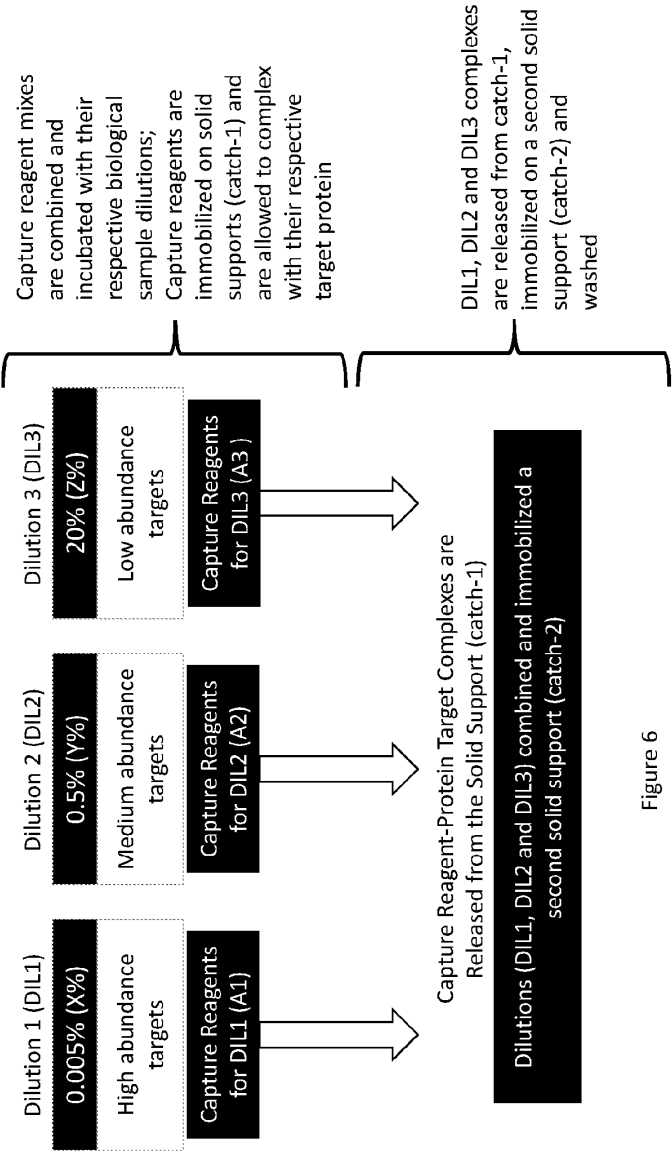


Figure 6

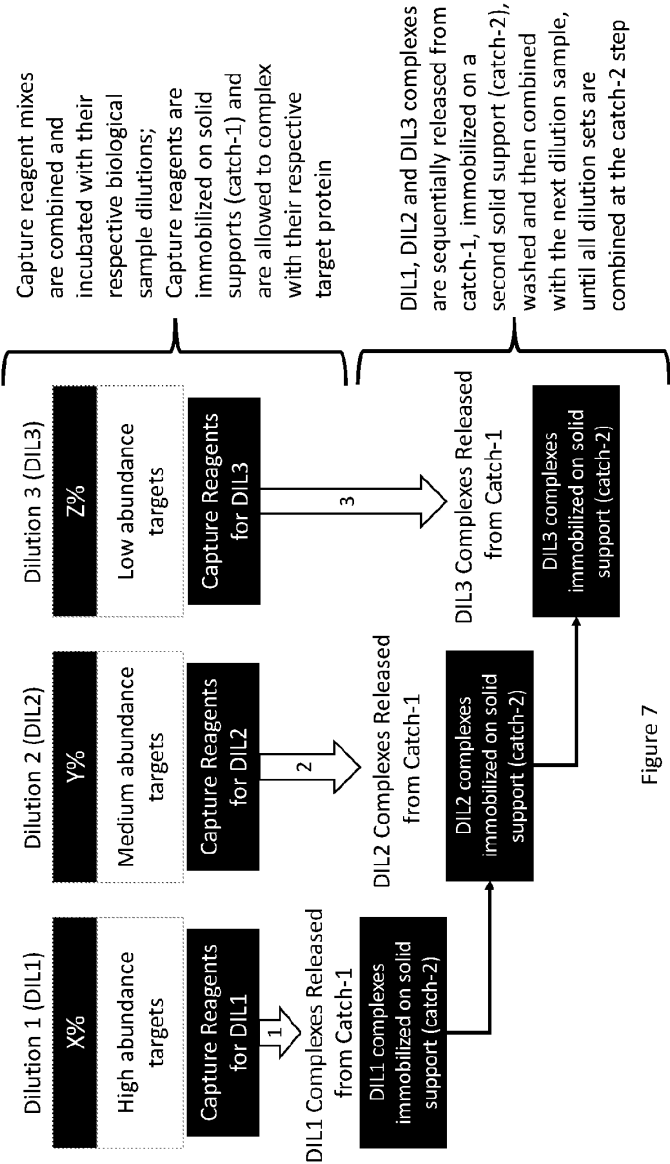


Figure 7

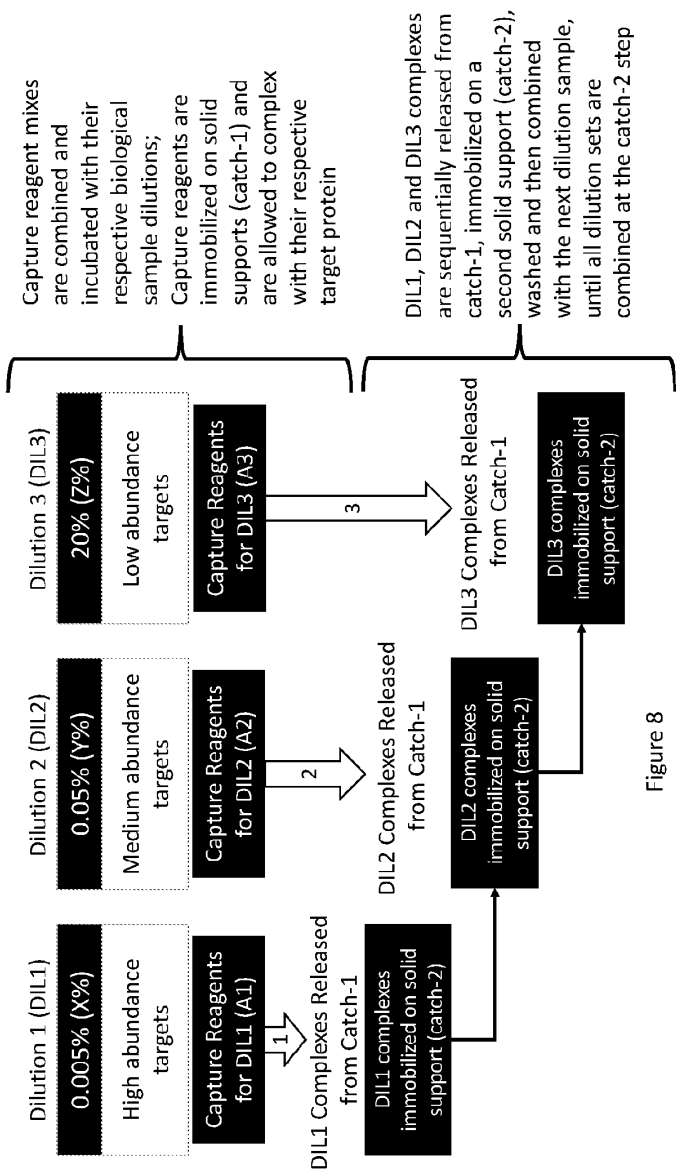


Figure 8

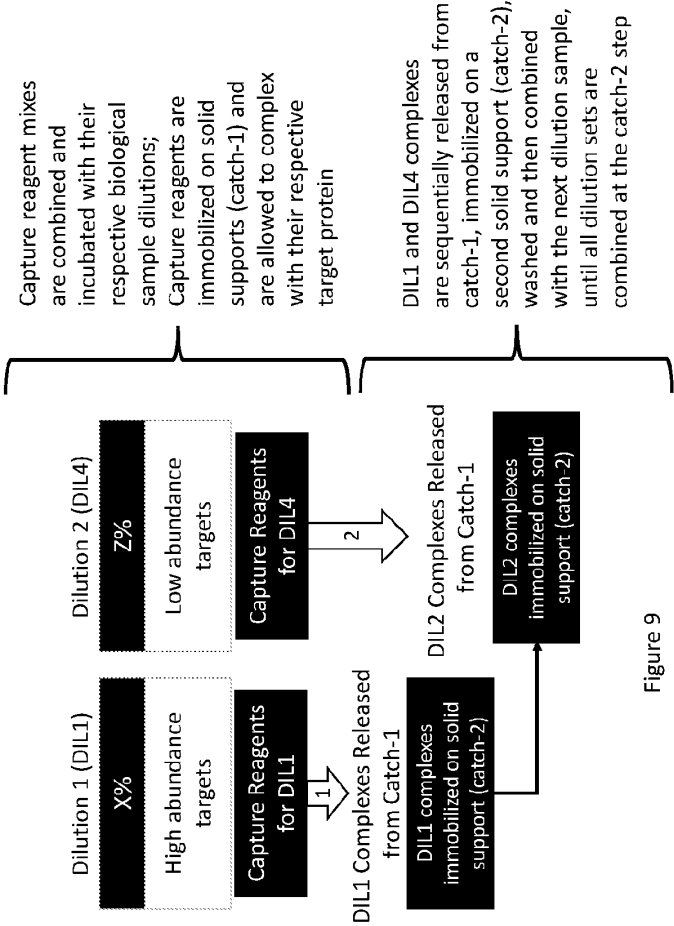
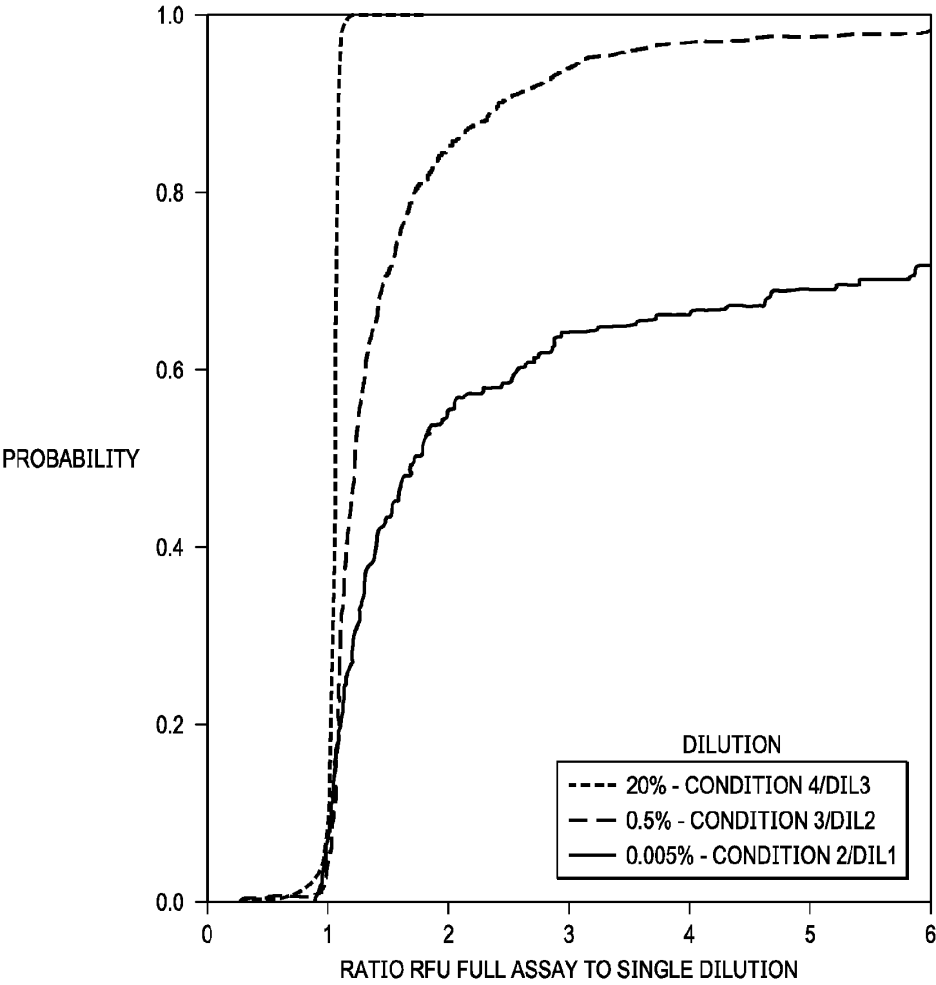
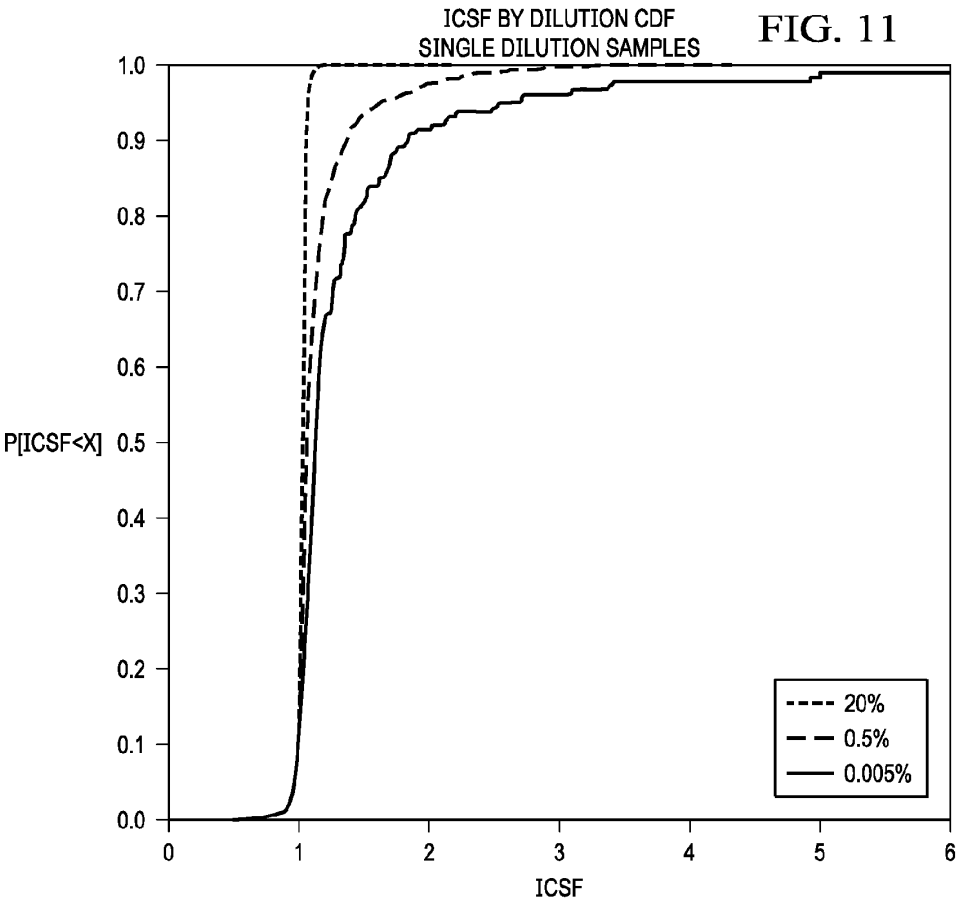


Figure 9

FIG. 10





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