



FIG. 1A



FIG. 1B

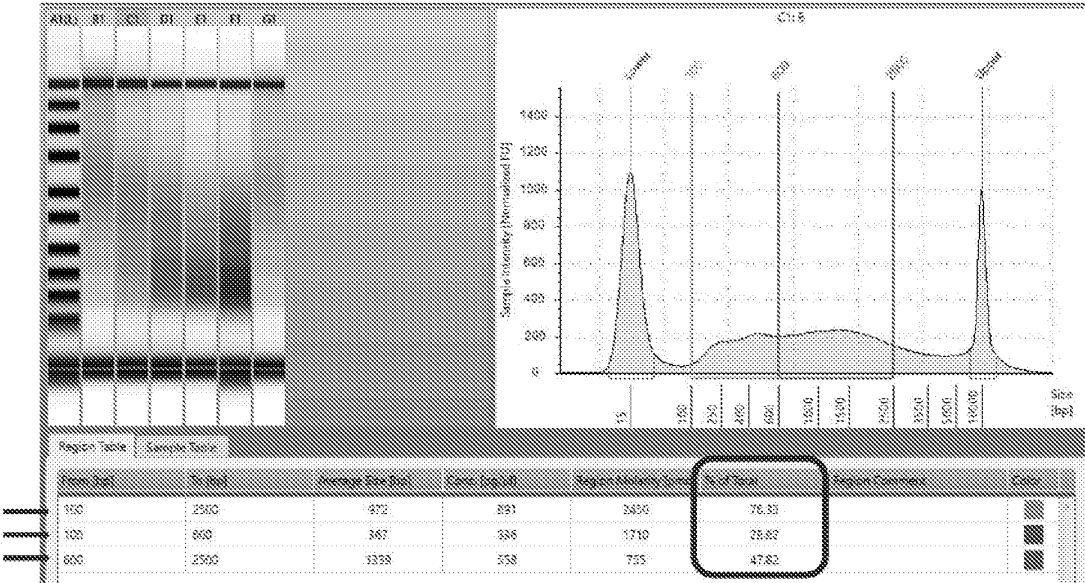


FIG. 2

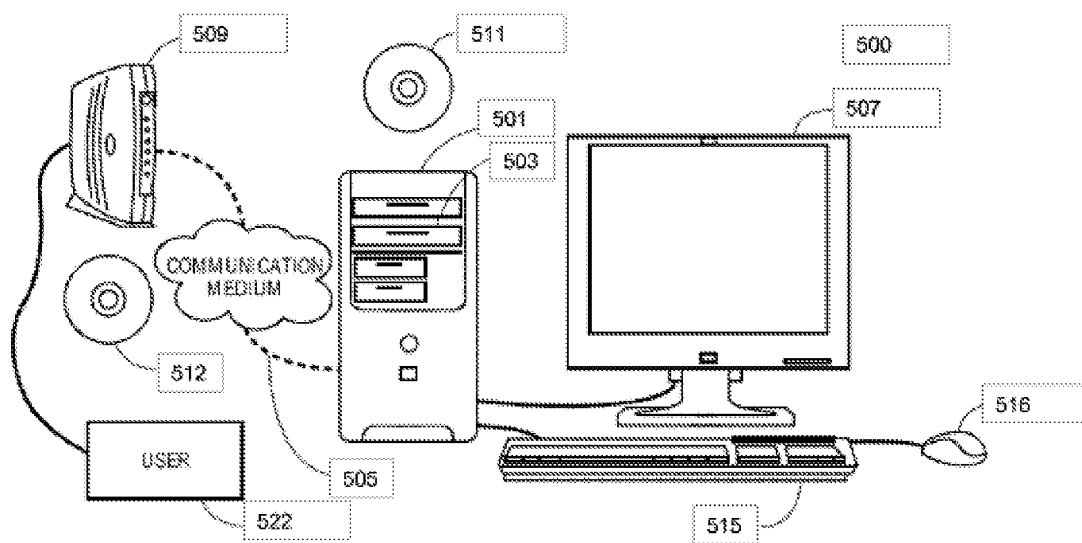


FIG. 3

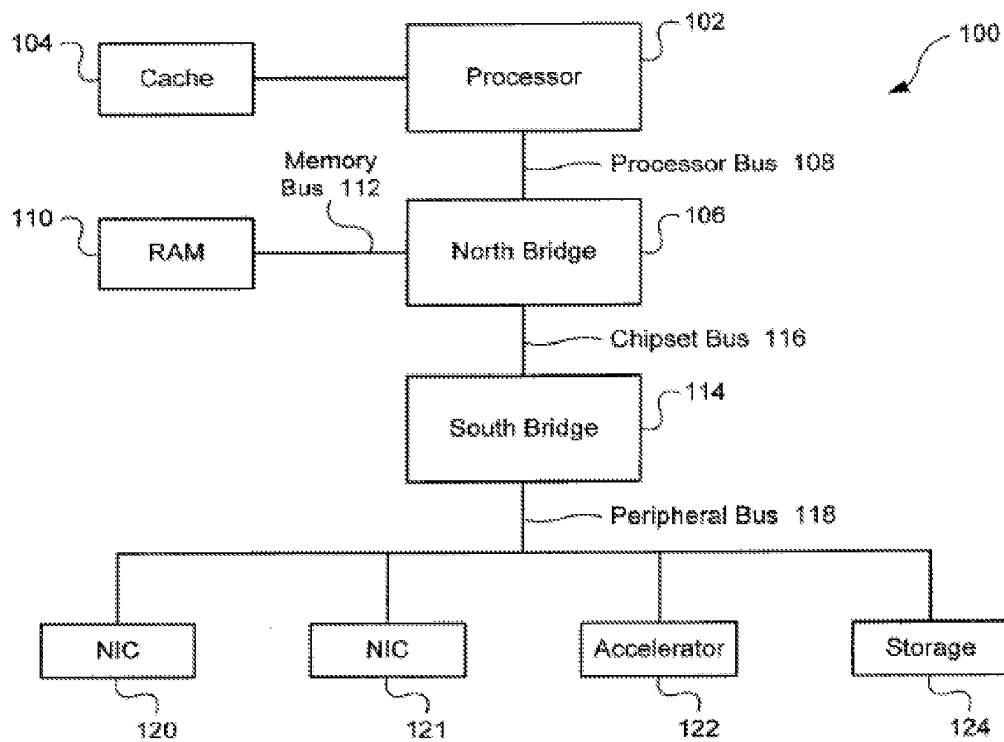


FIG. 4

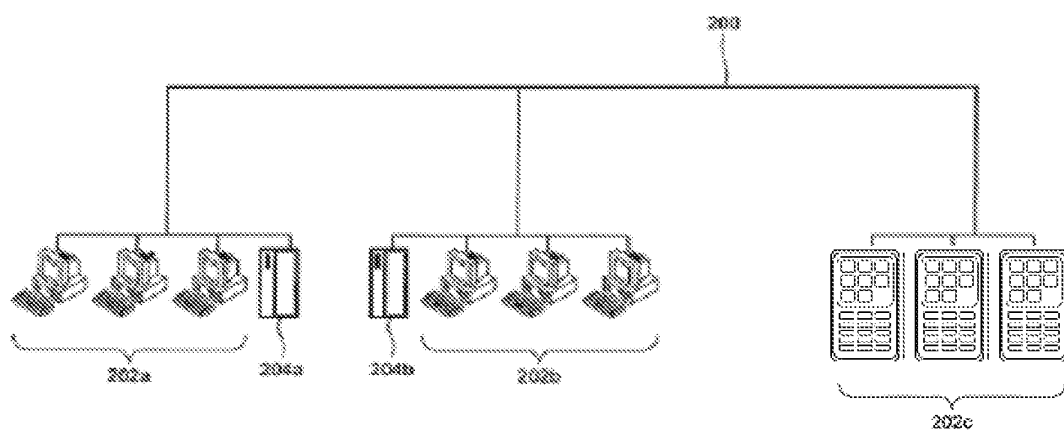


FIG. 5

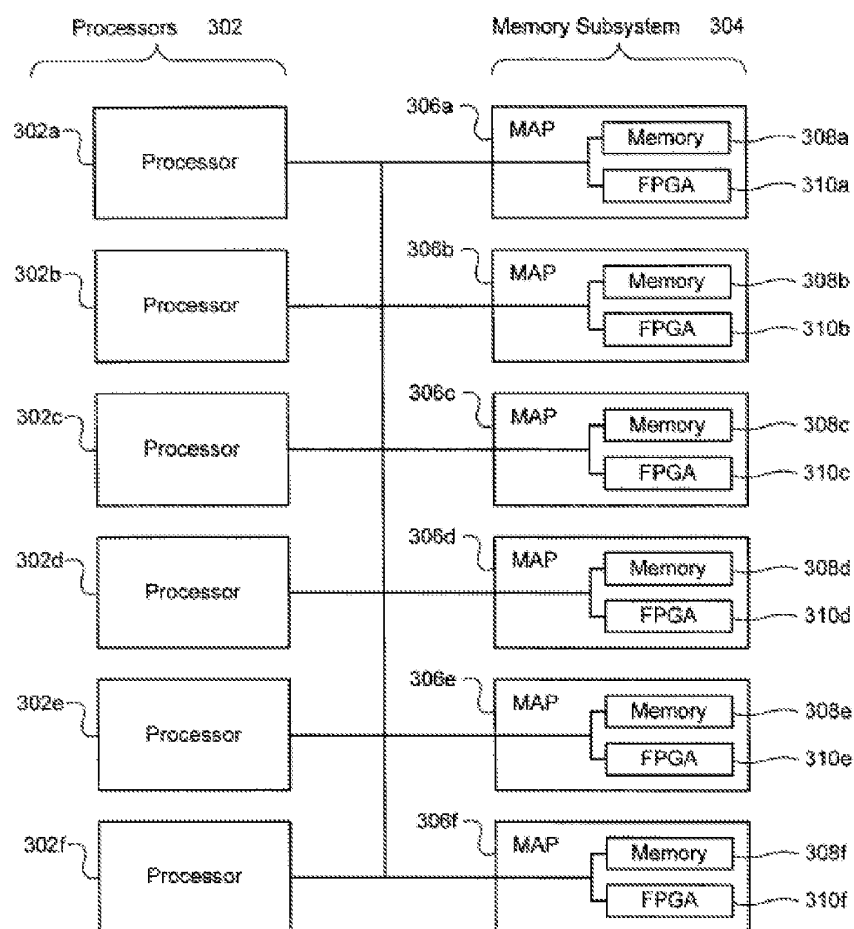


FIG. 6

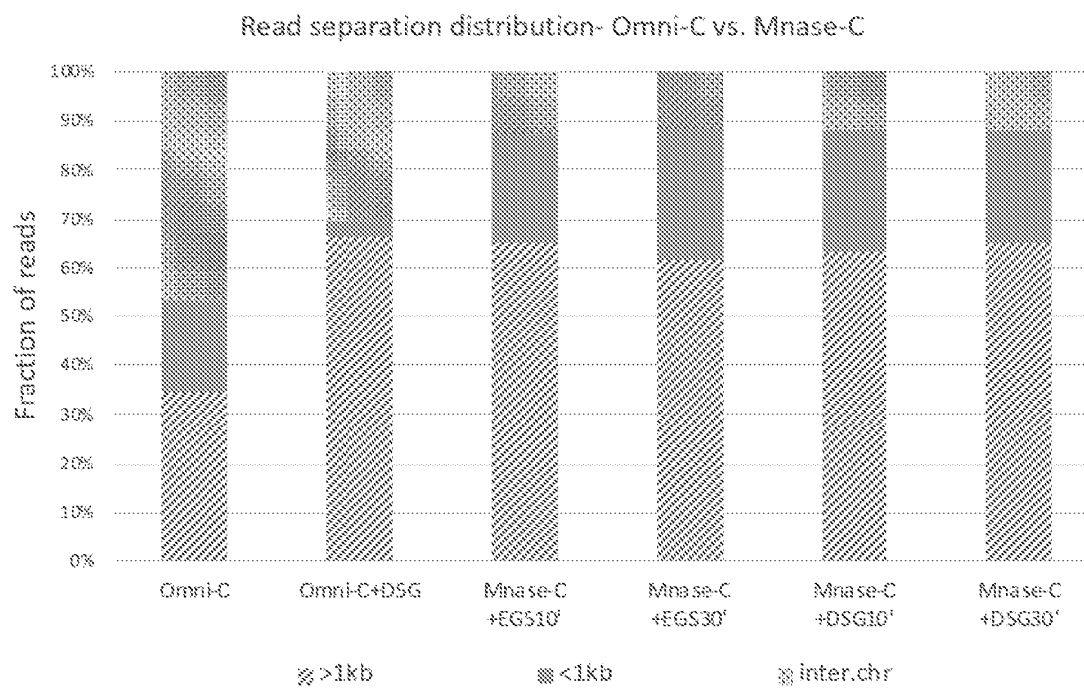


FIG. 7

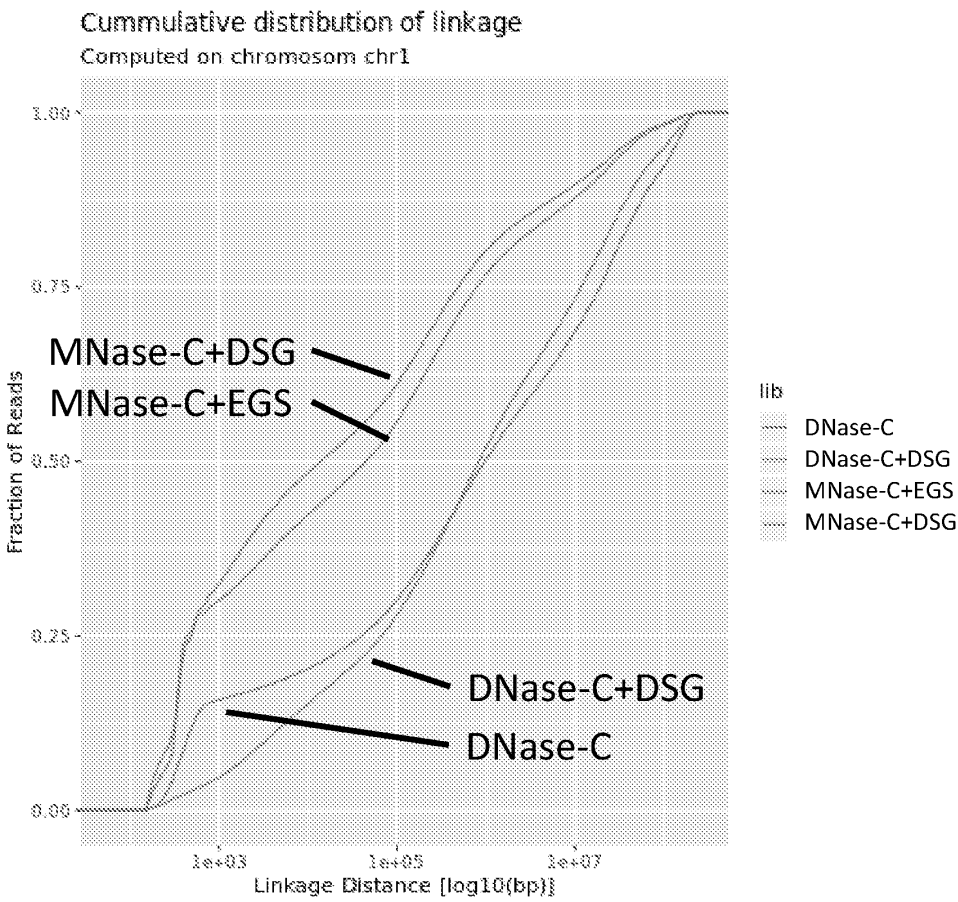


FIG. 8

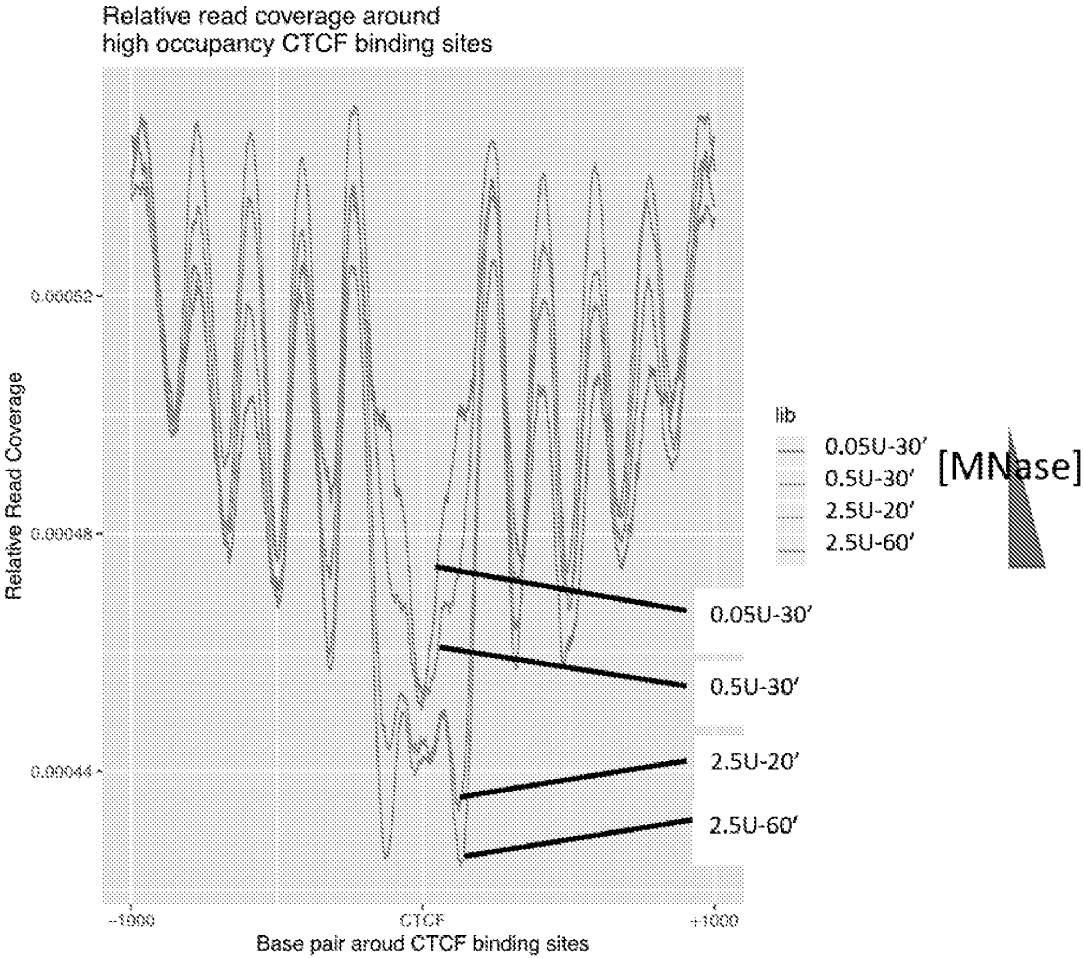


FIG. 9

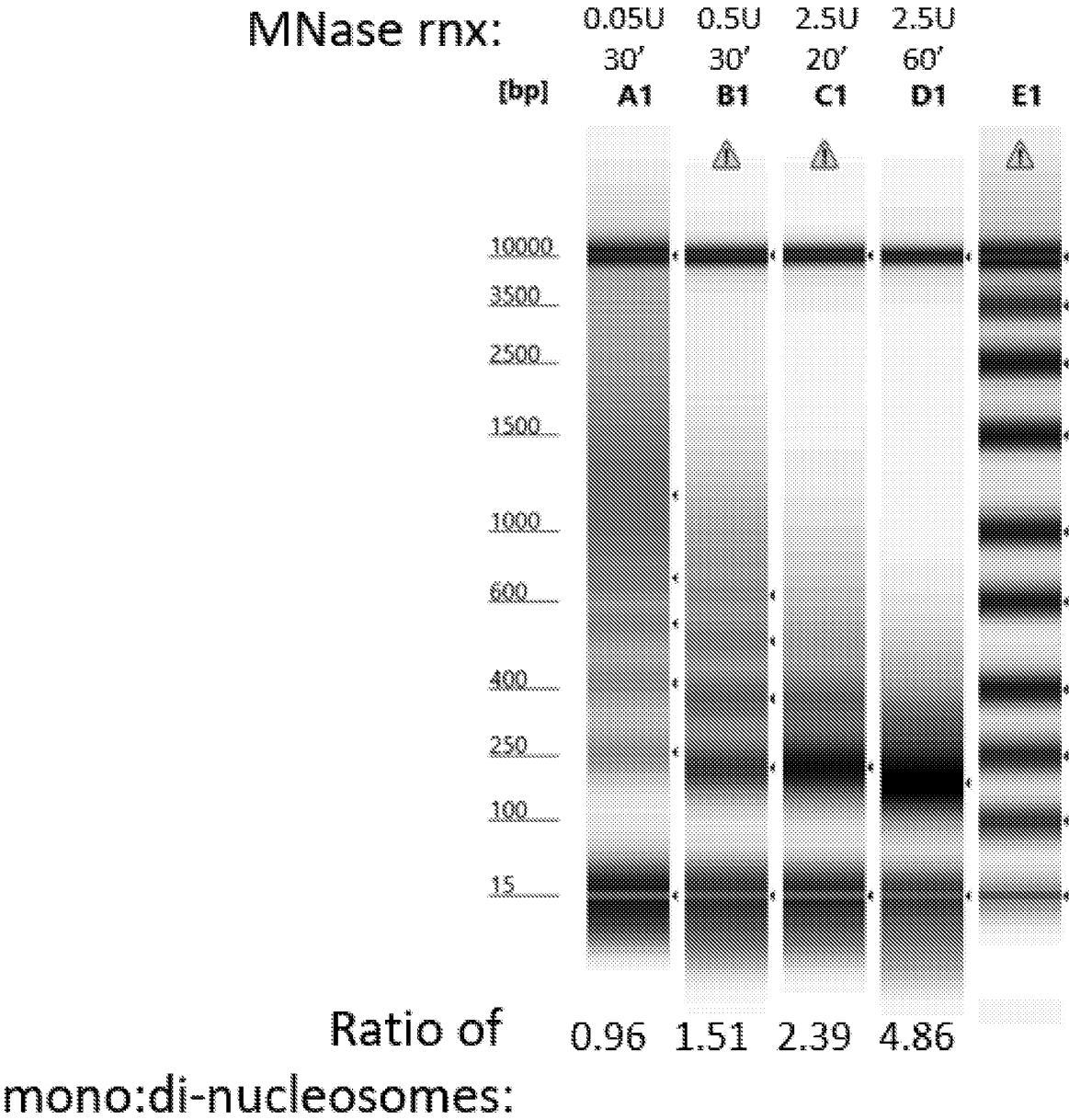


FIG. 10

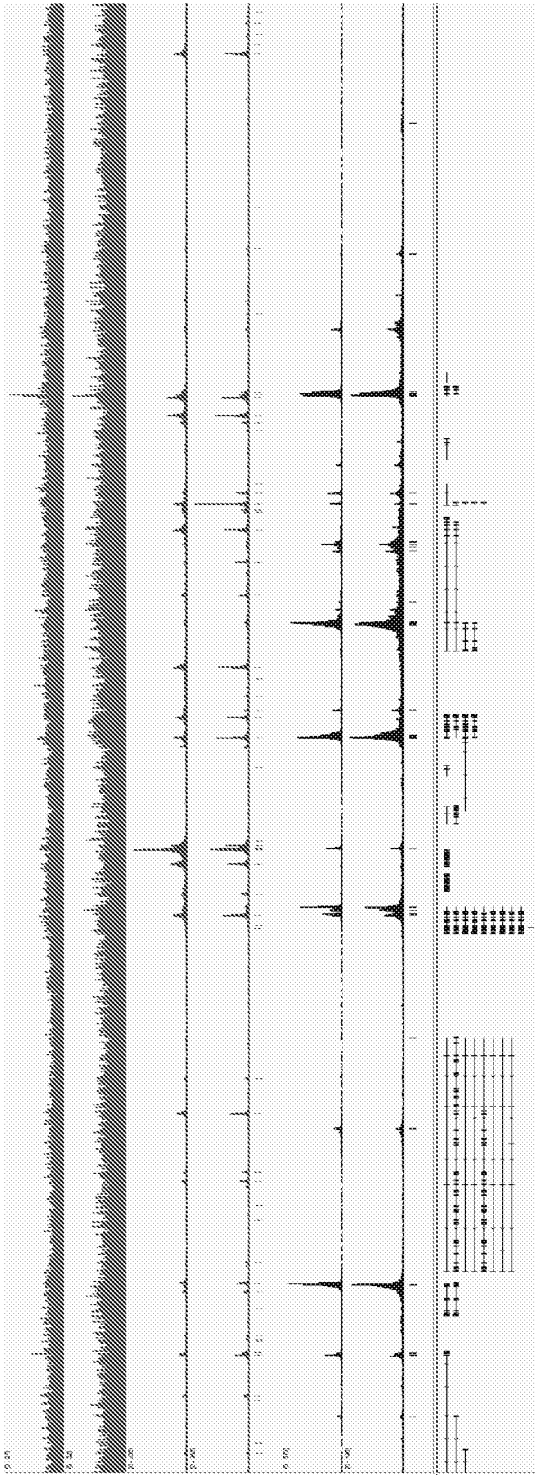


FIG. 11

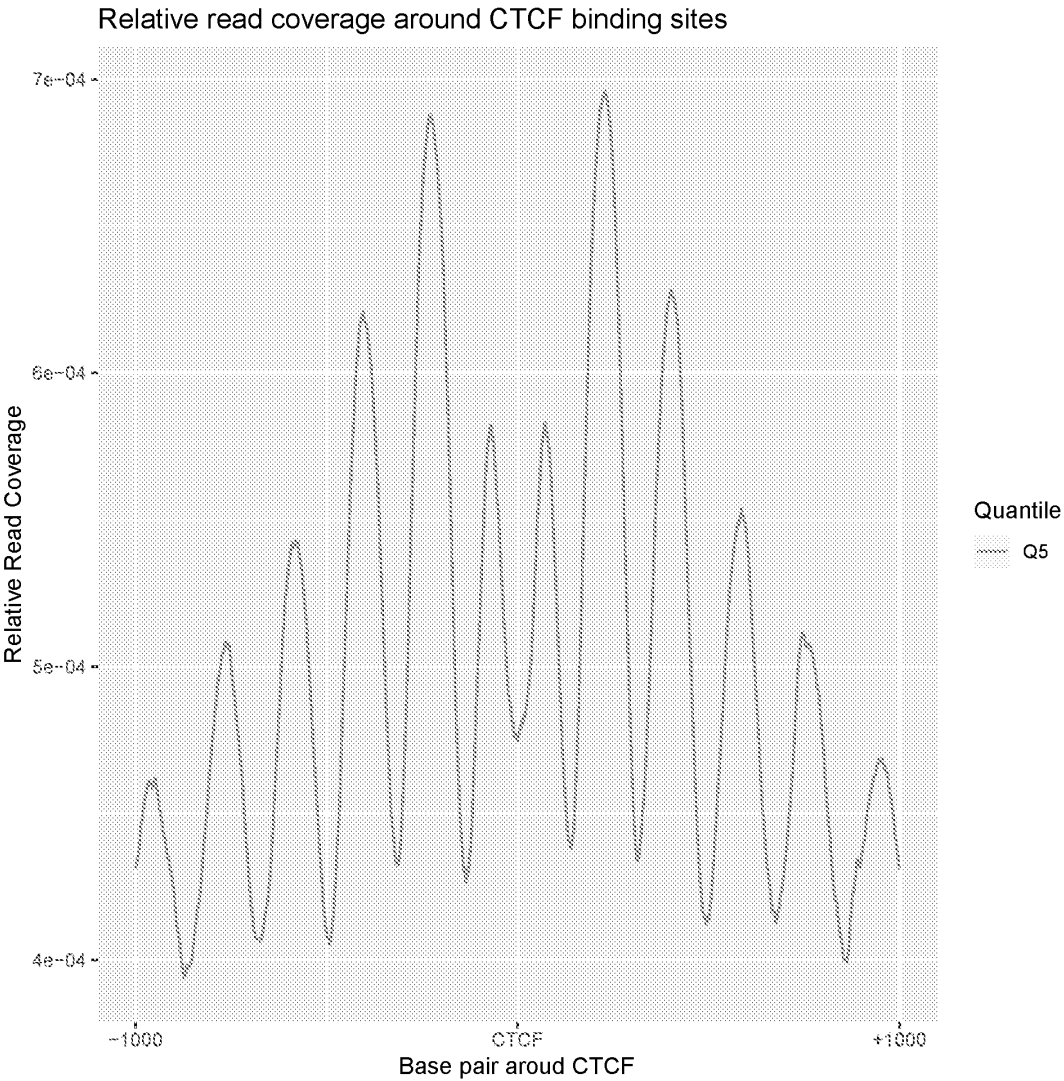


FIG. 12

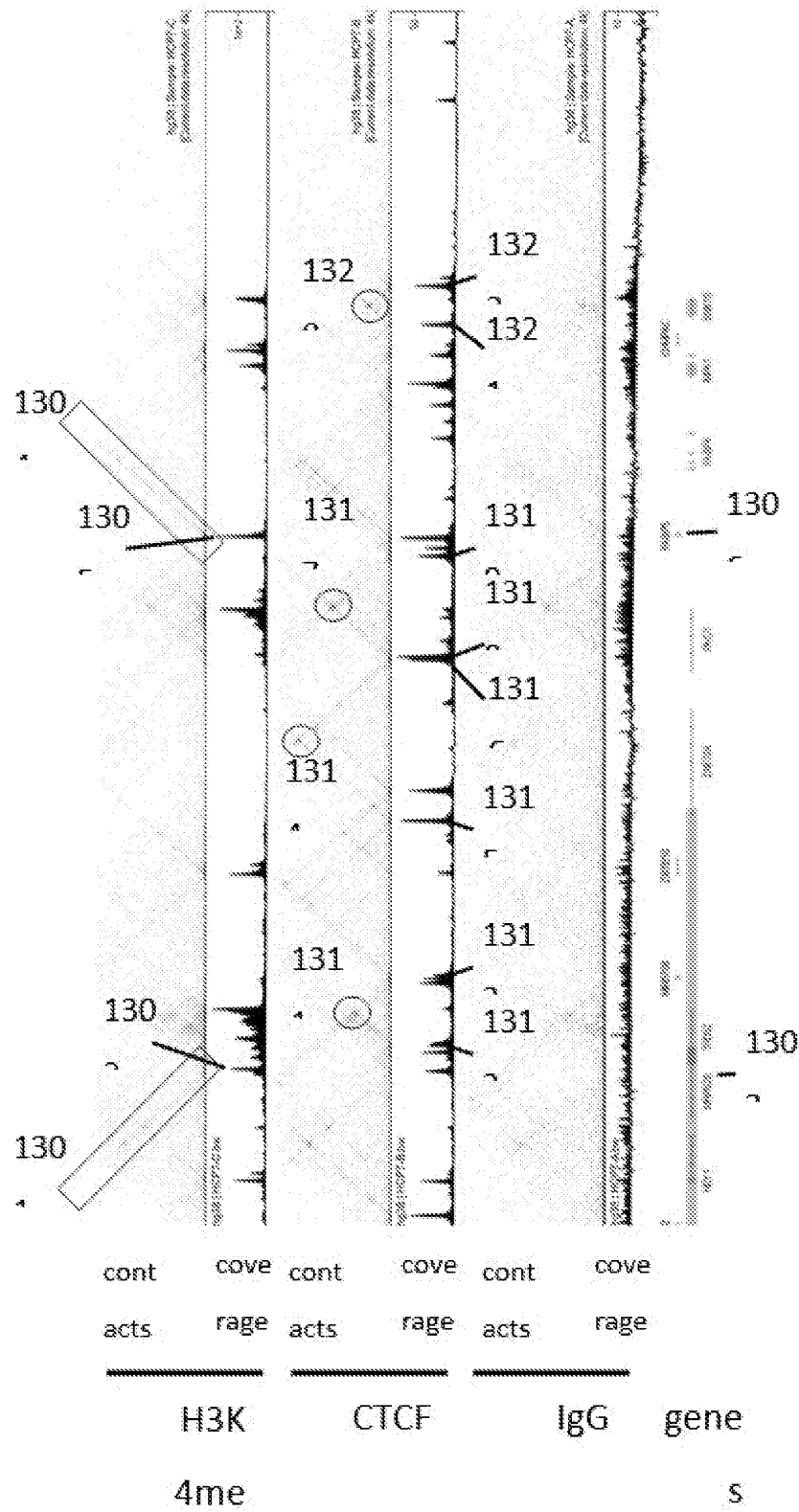
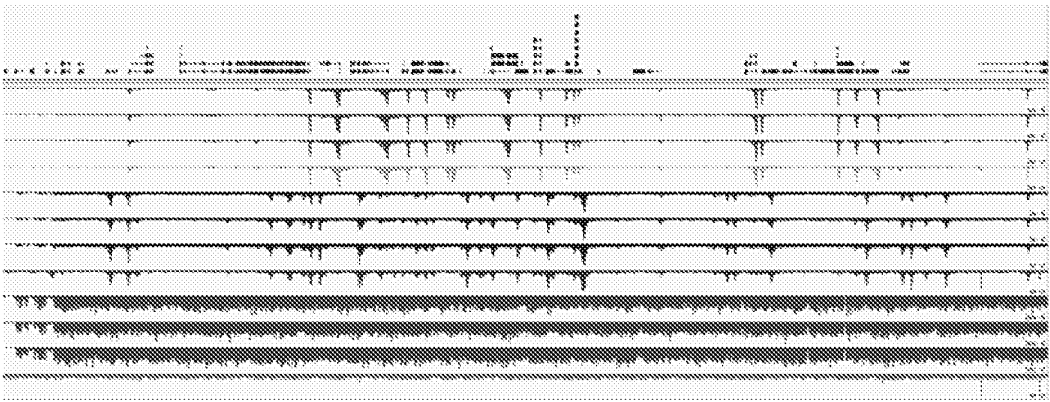


FIG. 13



	rep1	1	2	3	1	1	2	3	1	1	2	3	
Day		2			1		2		1		2		Gen
		Neg.			CTCF			H3K					
		Cntl.						4me					

FIG. 14

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DNase Digestion in situ



End Polishing/A tailing



Bridge adaptor ligation



Proximity ligation of ends



Reversal of crosslinks

...NNNNNNN NNNNNNN...

...NNNNNNN NNNNNNN...

...NNNNNNNA ^PNNNNNNN...

...NNNNNNN^P ANNNNNNN...

...NNNNNNNANN₁₀NGATC N⁰¹NNNNNNNNNN...

...NNNNNNNTNN₁₀N ⁰¹VON⁰¹NN ANNNNNNN...

...NNNNNNNANN₁₀NGATC N⁰¹NNNNNNNNNN...

...NNNNNNNTNN₁₀N⁰¹VON⁰¹NN ANNNNNNN...

FIG. 15

DNase Digestion in situ



End Polishing/A tailing



Dispense Single Cells

Barcode adaptor ligation



Pool

Dispense Single Cells

Barcode adaptor ligation



Pool

Dispense Single Cells

Bridge adaptor ligation

...NNNNNNN NNNNNNN...

...NNNNNNN NNNNNNN...

...NNNNNNNA ^PNNNNNNN...

...NNNNNNN^P ANNNNNNN...

...NNNNNNNATG (N3) TCAA

...NNNNNNNTAC (N3) A^P

...NNNNNNNATG (N3) TCAA A (N3) TCATG

...NNNNNNNTAC (N3) AGTTT (N3) AG^P

bc1 bc2 Bio-Bridge

...NNNNNNNATG (N3) TCAA A (N3) TCATG C (N3) ATGATC

...NNNNNNNTAC (N3) AGTTT (N3) AG TACG (N3) TA

FIG. 16

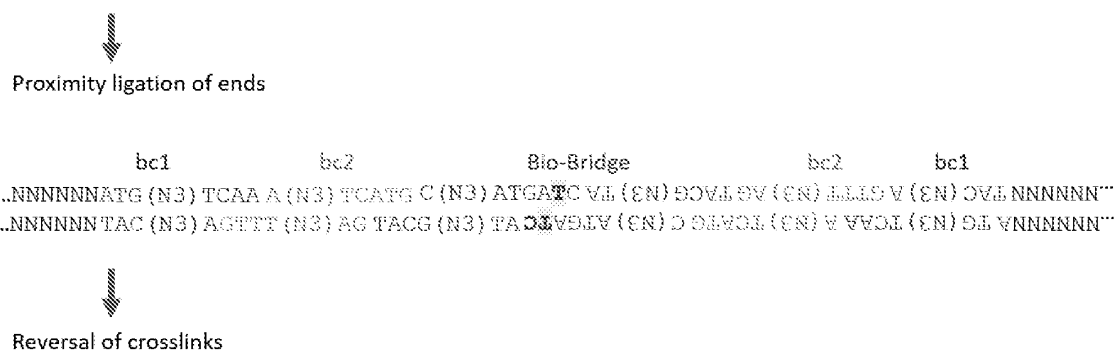


FIG. 17

bc1	bc2	Bio-Bridge
TG (N3) TCAA A (N3) TCATG C (N3) ATGATC TAC (N3) AGTTT (N3) AG TACG (N3) TA		

FIG. 18

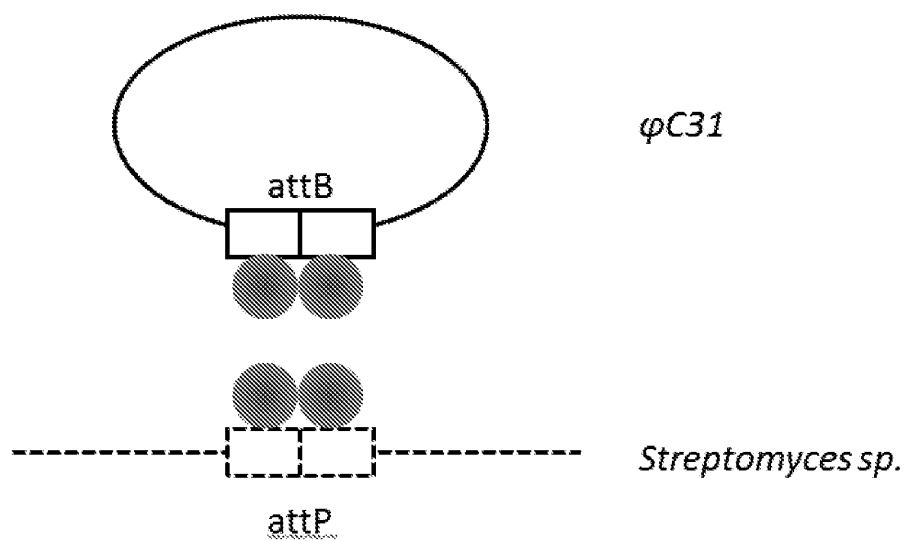


FIG. 19A

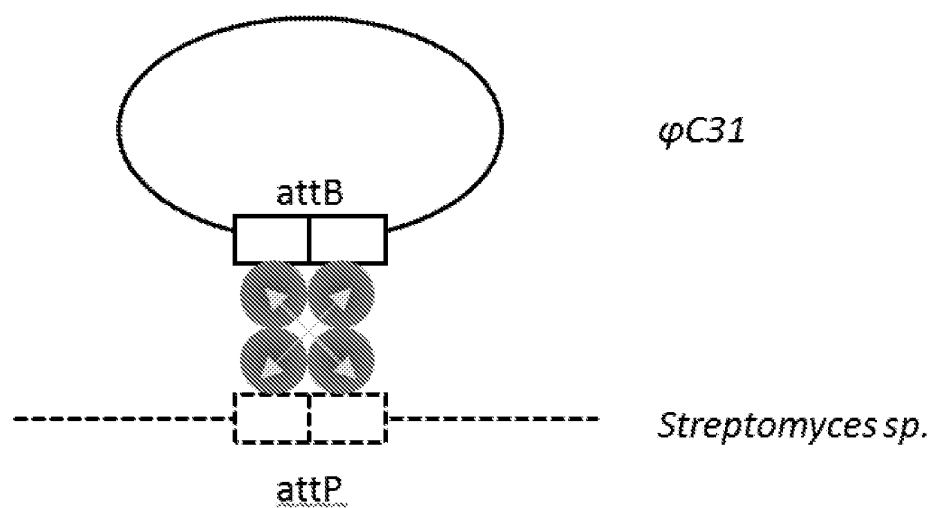


FIG. 19B

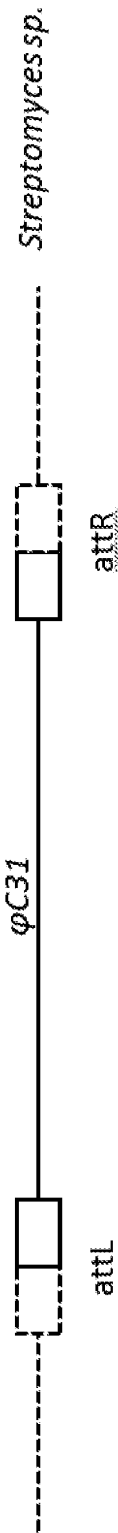


FIG. 19C

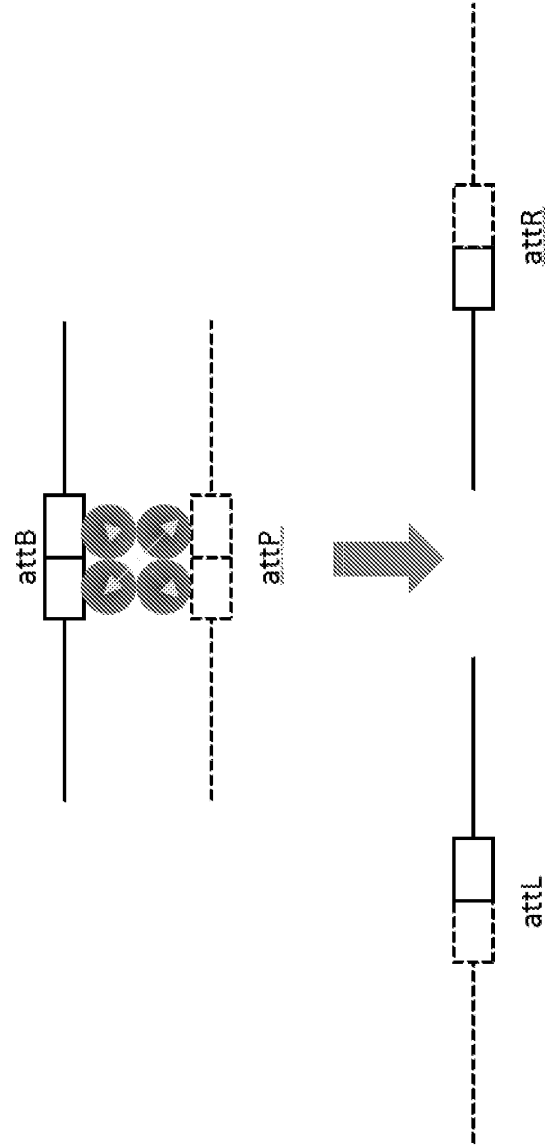


FIG. 19D

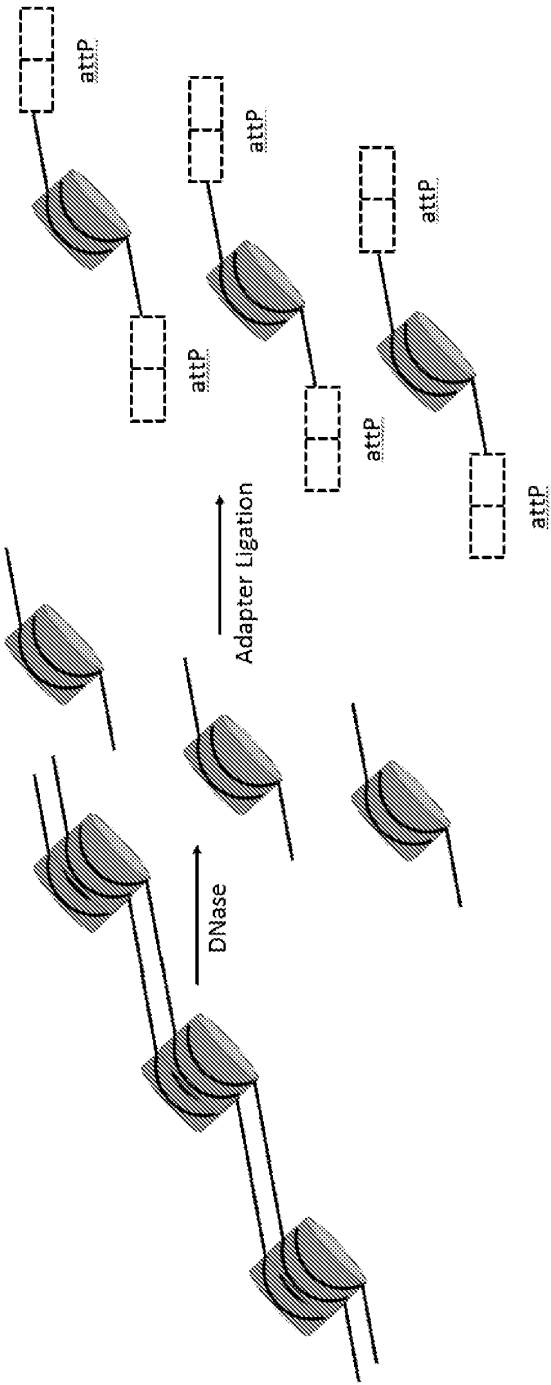


FIG. 20

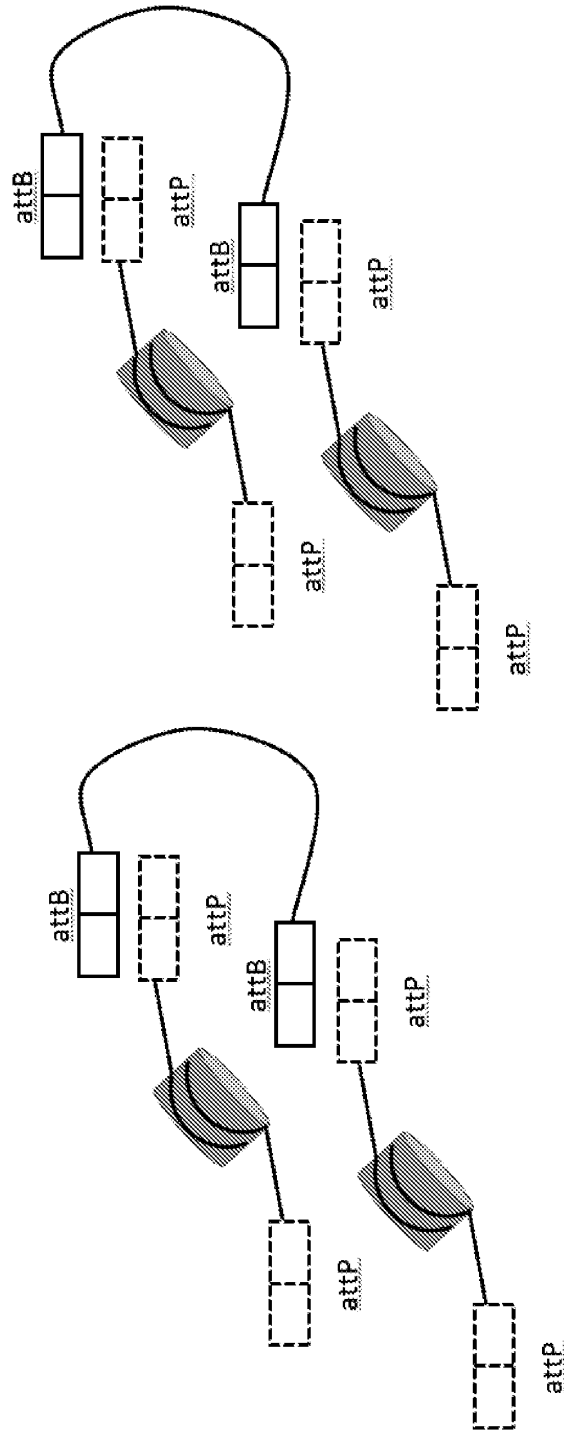


FIG. 21

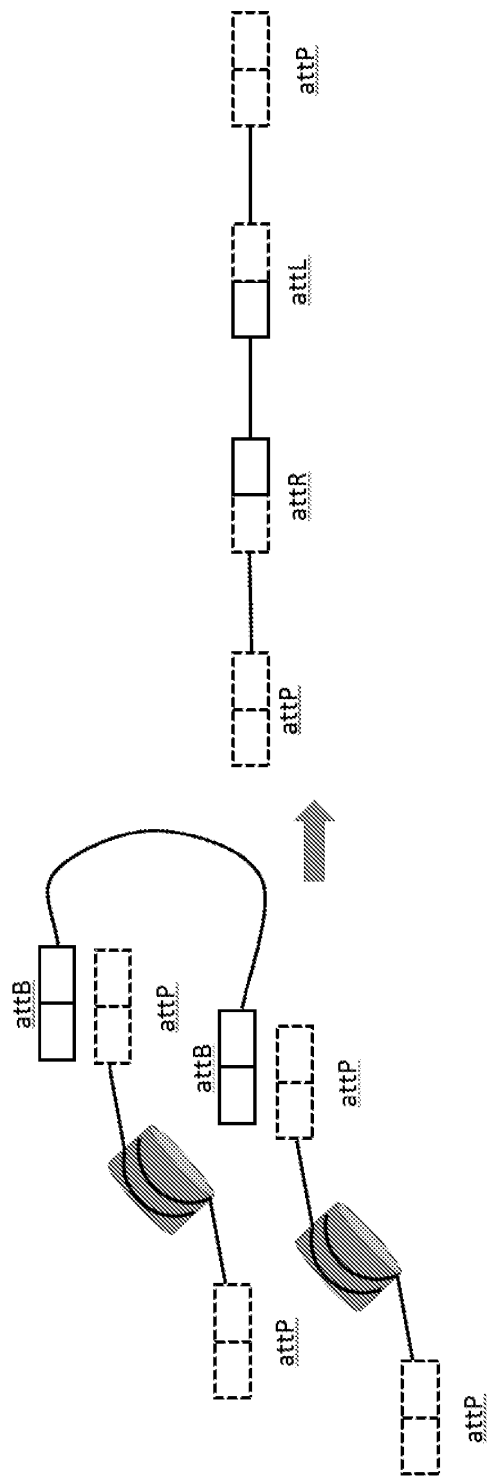


FIG. 22

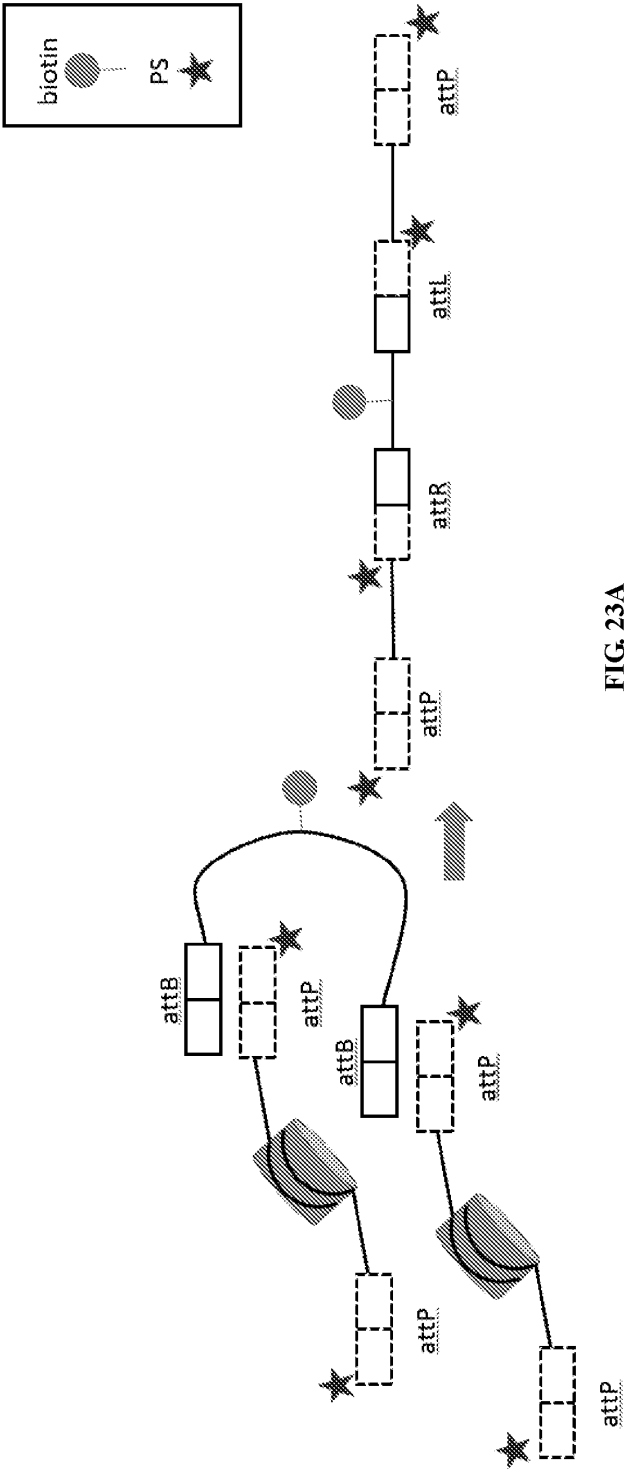


FIG. 23A

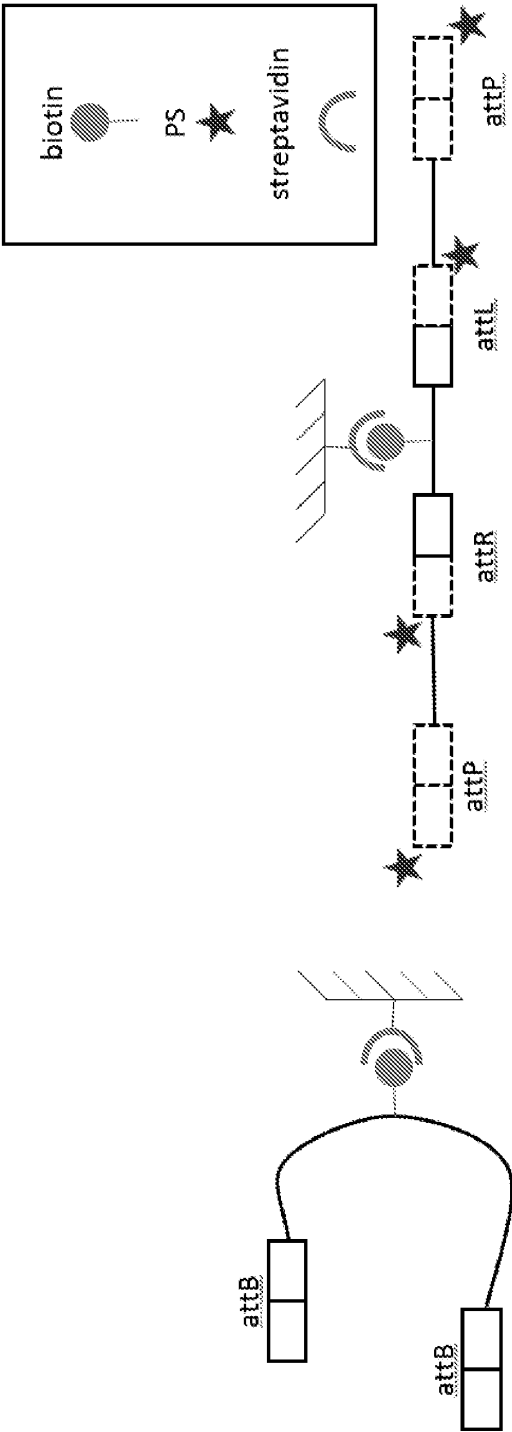


FIG. 23B

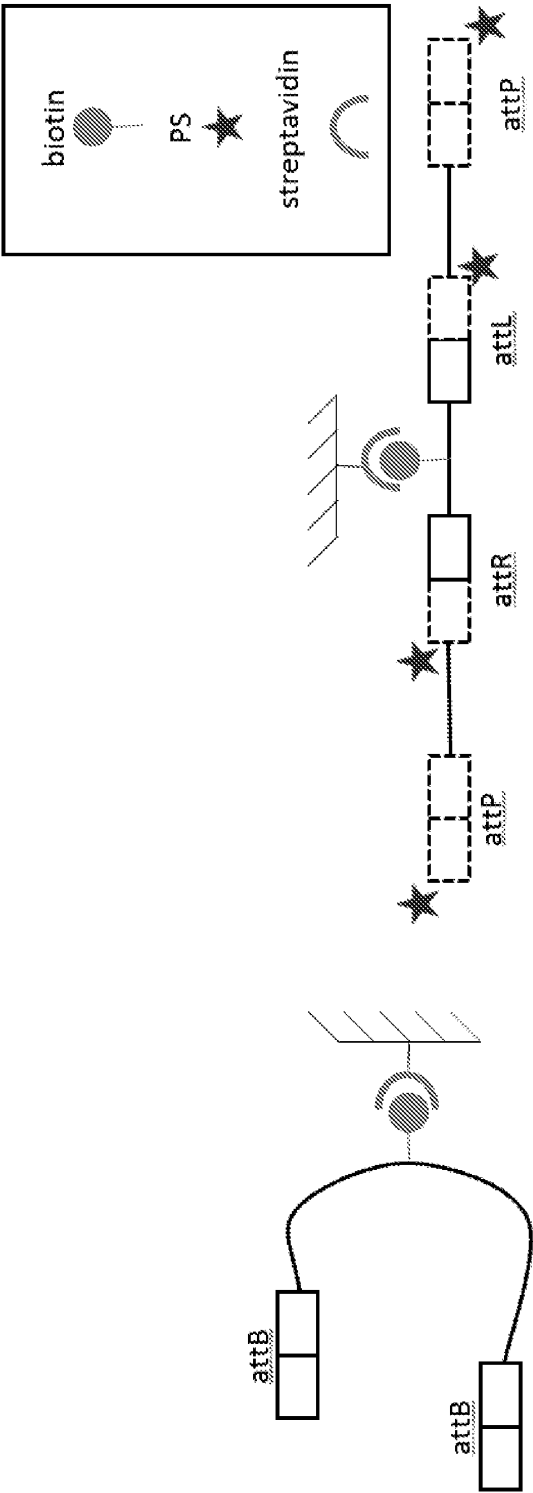


FIG. 23C

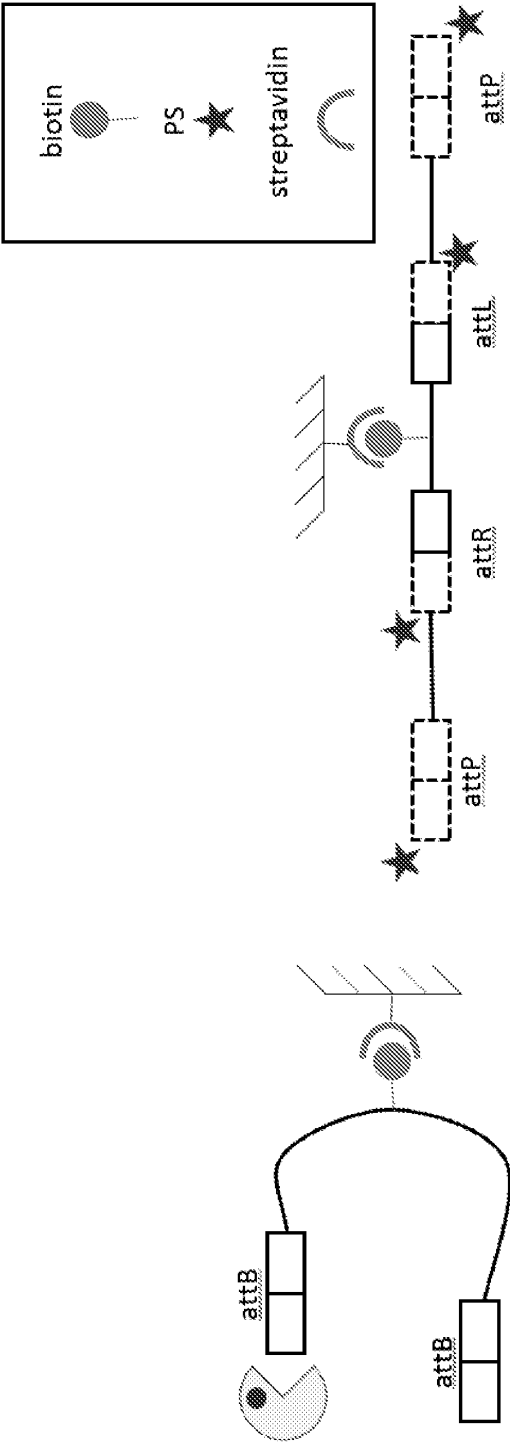


FIG. 23D

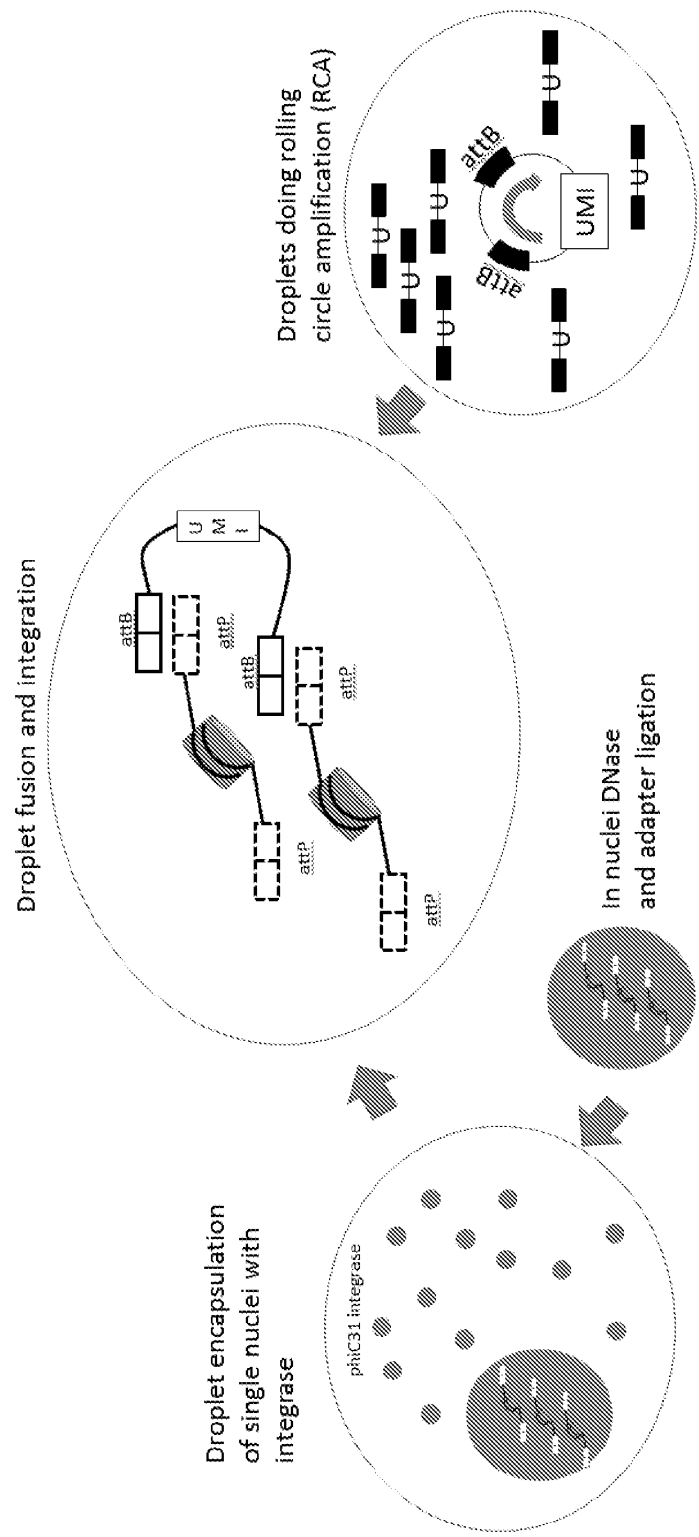
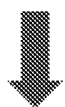


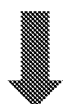
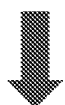
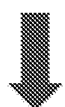
FIG. 24

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DNase digested chromatin



End Polish/A-tail

Ligate attB
(A-tail compatible)PhiC31 recombination
(proximity ligation)

cross-link reversal

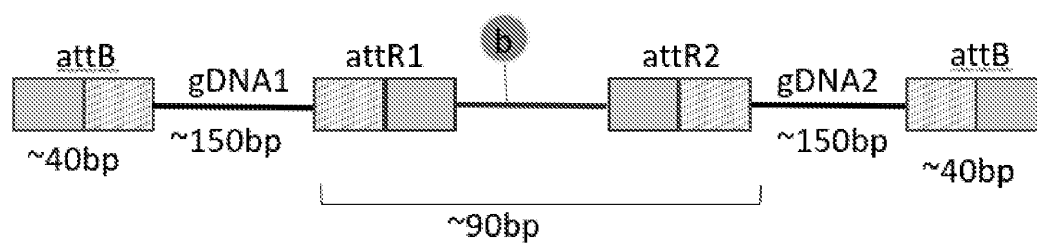
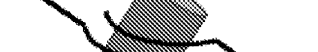


FIG. 25

Unrecombined gDNA with EP overhang attB

[illegible]

Unrecombined gDNA with attB

AGTGGCCAGGGCGTGCCCTtGGGCTCCCCGGGCGCGTCCCC
 LVVSSSLVSSSSSVSSSSVSSSSSSSSSSSSSVSSSS

 GGGGACCGCGCCCGGGGAGCCCaaGGGCAAGCCCTGGCAC T
 VVVVLSVVSSSSVVVVVSSSSVSSSSSVSSSSV

Unrecombined biotin linker with attP

attR: ACCTTTGAGT Linker:CATGGAGATC
ggagCCCCAACTGGGGTAACCTtGAGTtCTCTCAGTtGGGGGaccatggaga/iBiodT/c...
...aCCCCAACTGAGAGAACTCaaAGGTTACCCCAGTtGGGGGCACTAC

One end of linker recombined with attB/gDNA

[illegible]

Both ends of linker recombined with attB/gDNA

[illegible]

FIG. 26

