

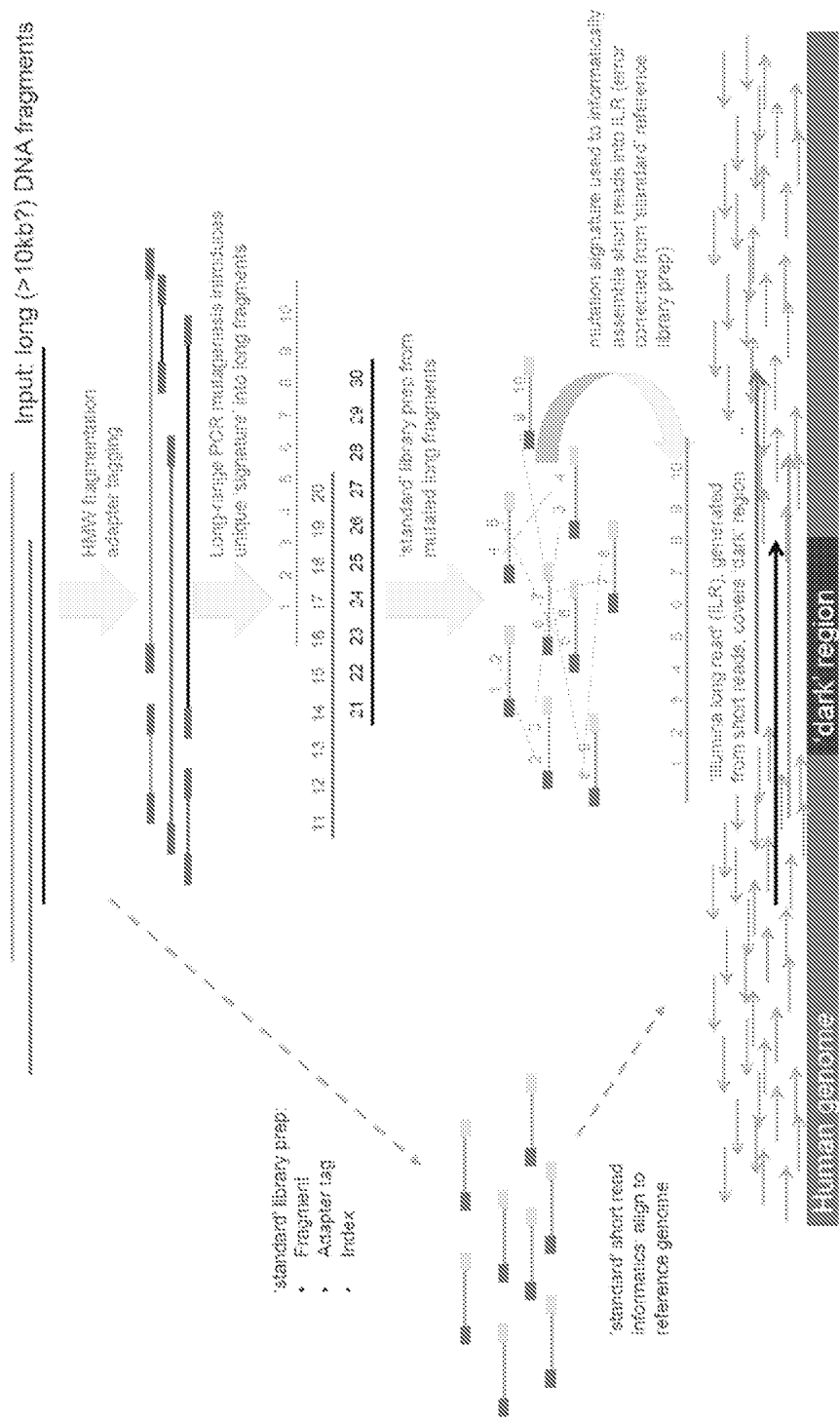


FIG. 1

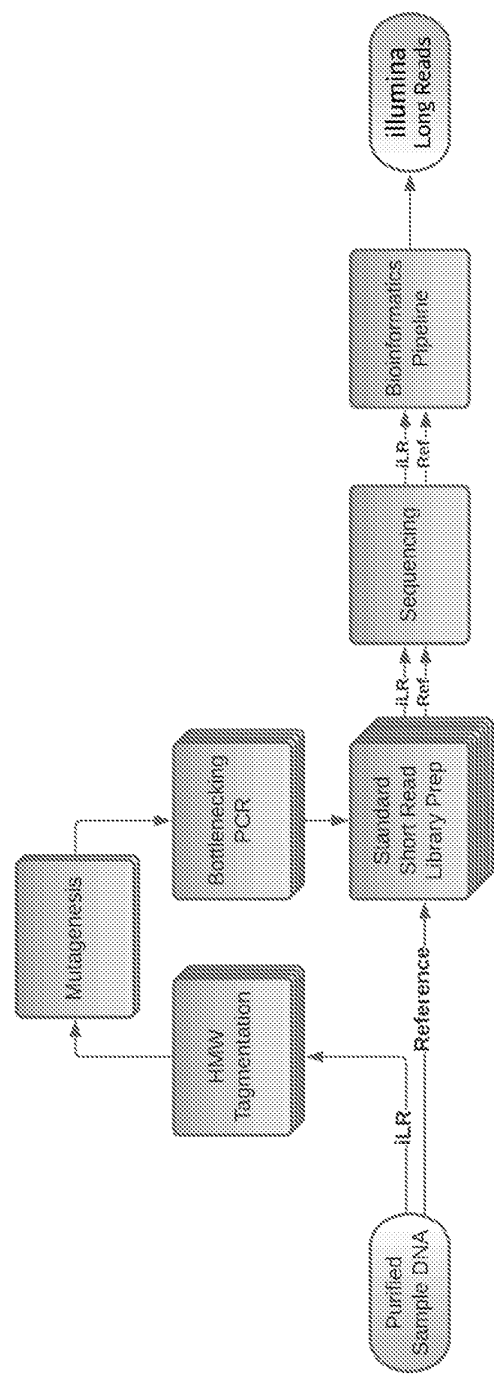


FIG. 2

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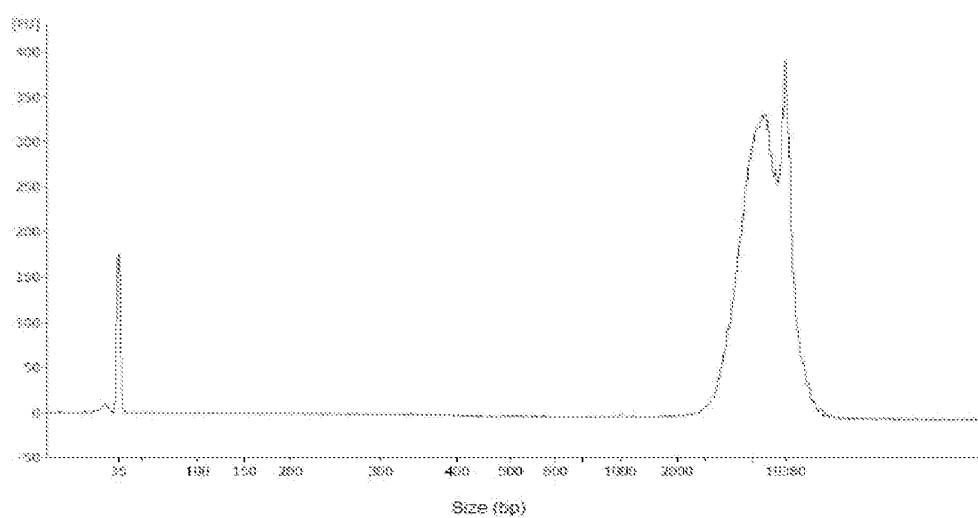


FIG. 3A

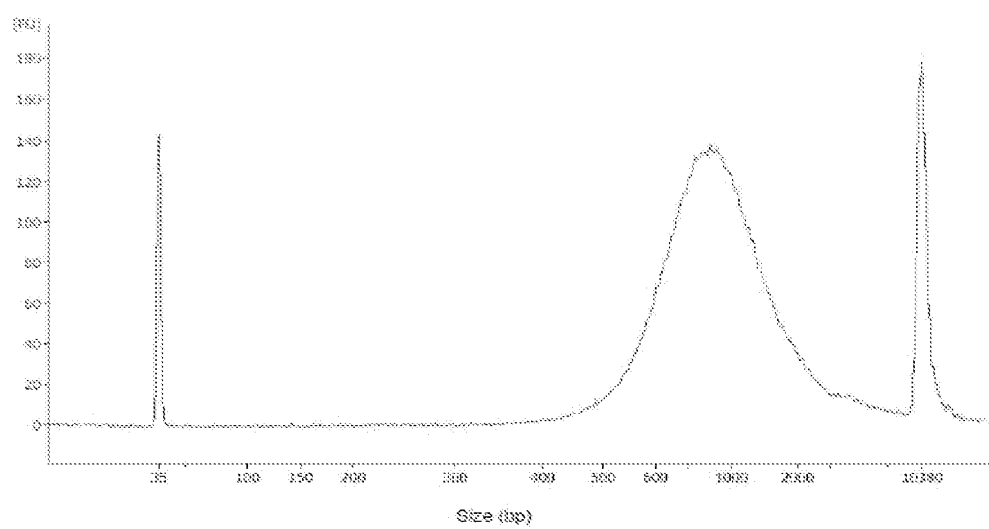


FIG. 3B

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Transposome in solution

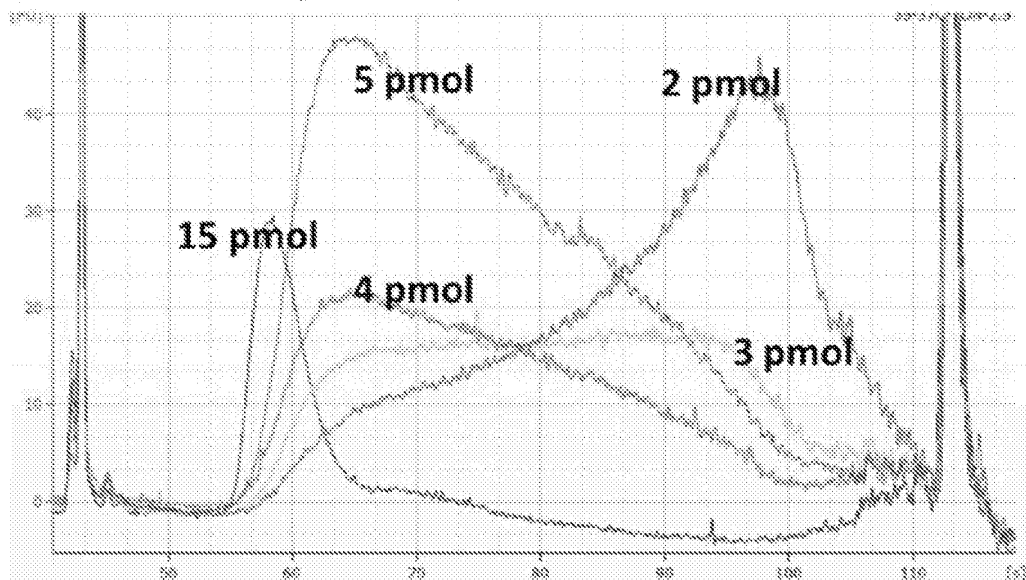


FIG. 4A

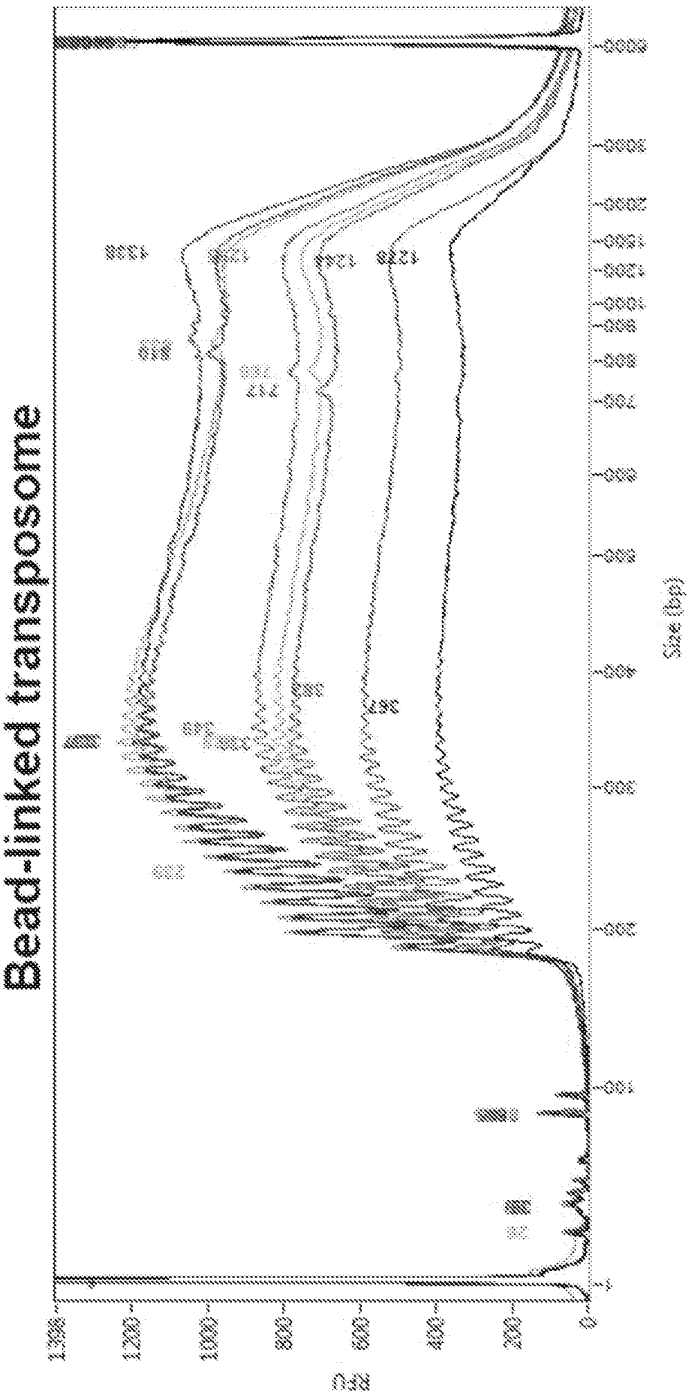
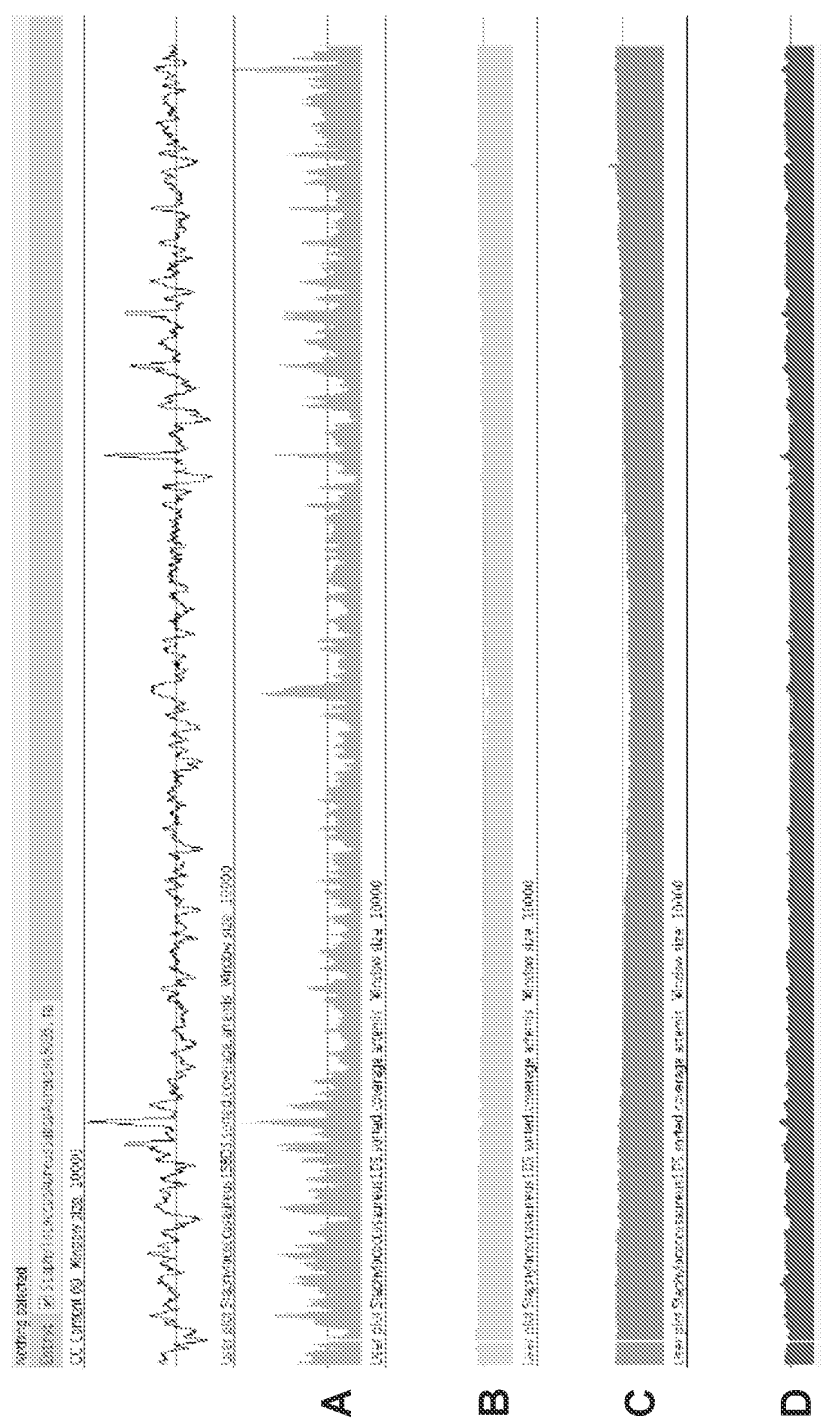


FIG. 4B



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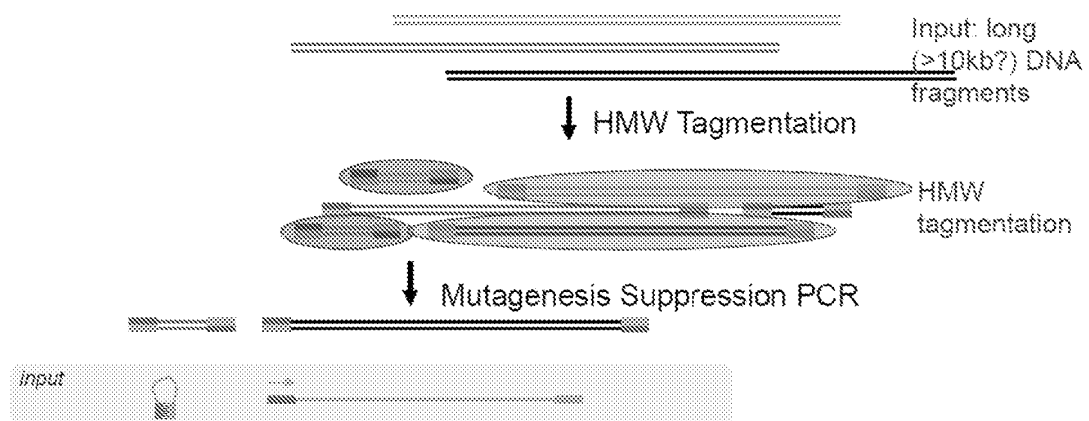


FIG. 5

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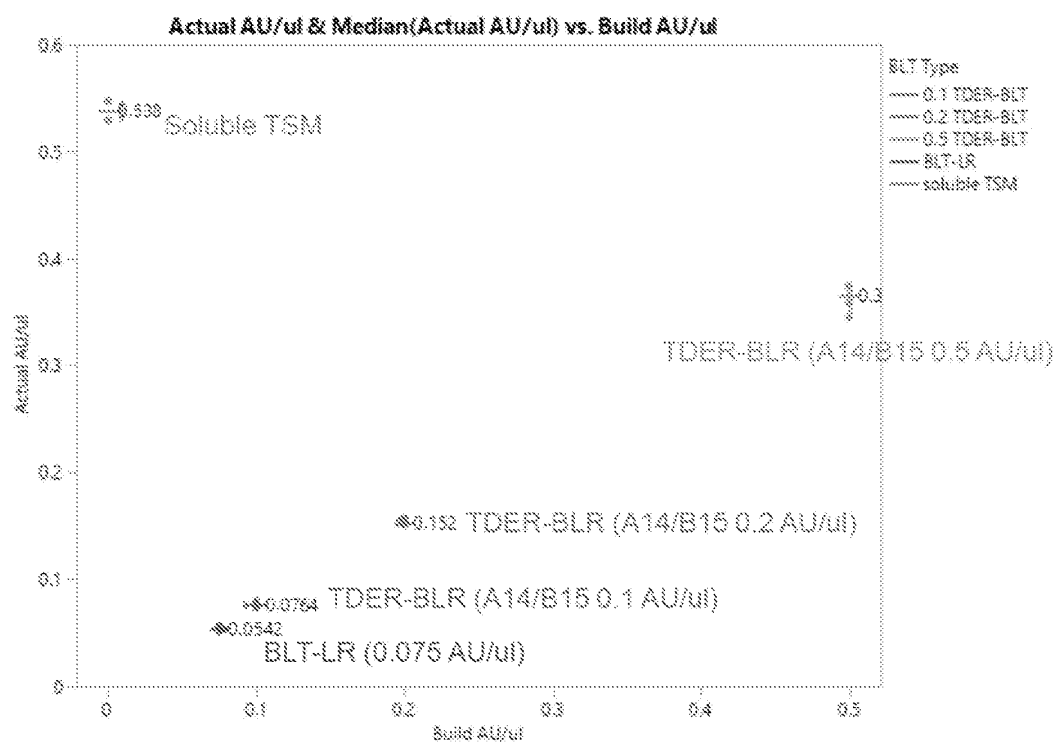


FIG. 6A

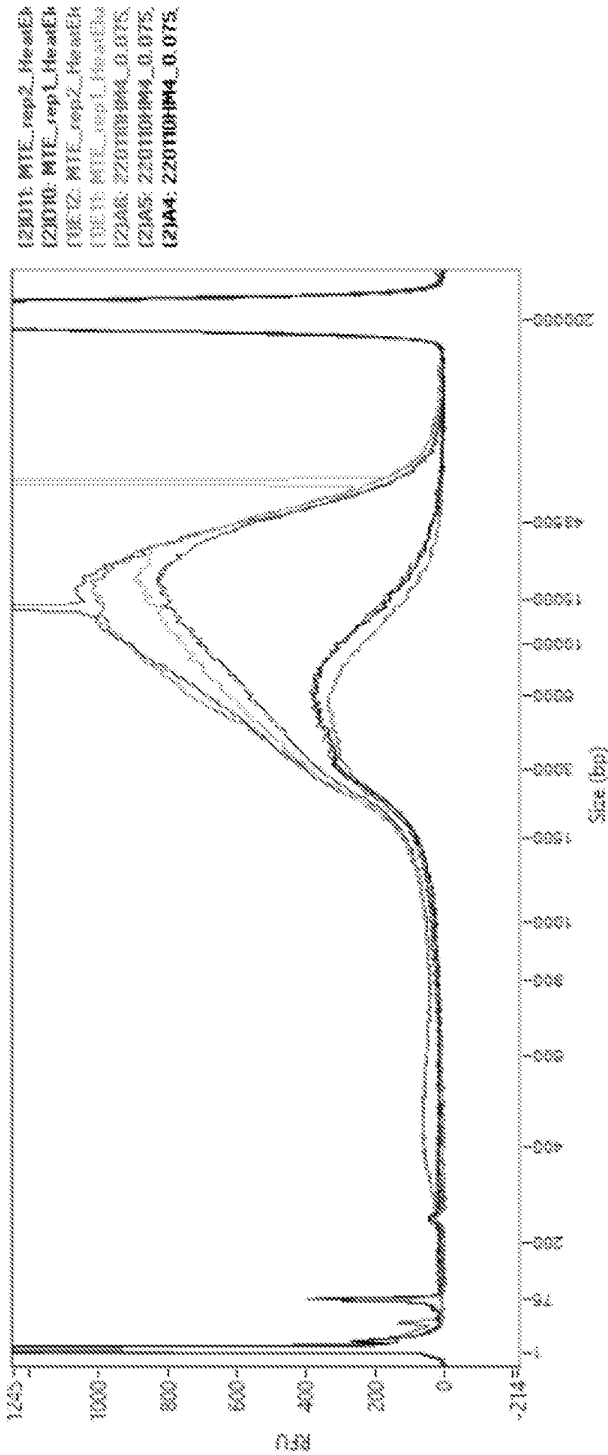


FIG. 6B

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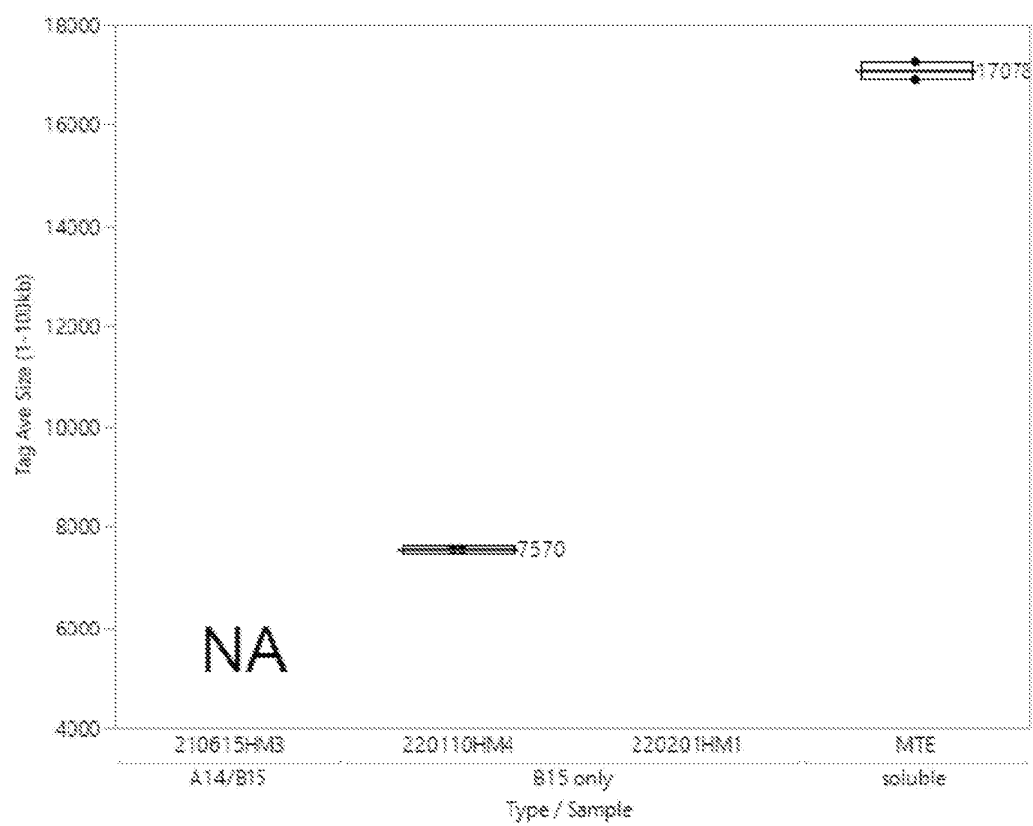


FIG. 6C

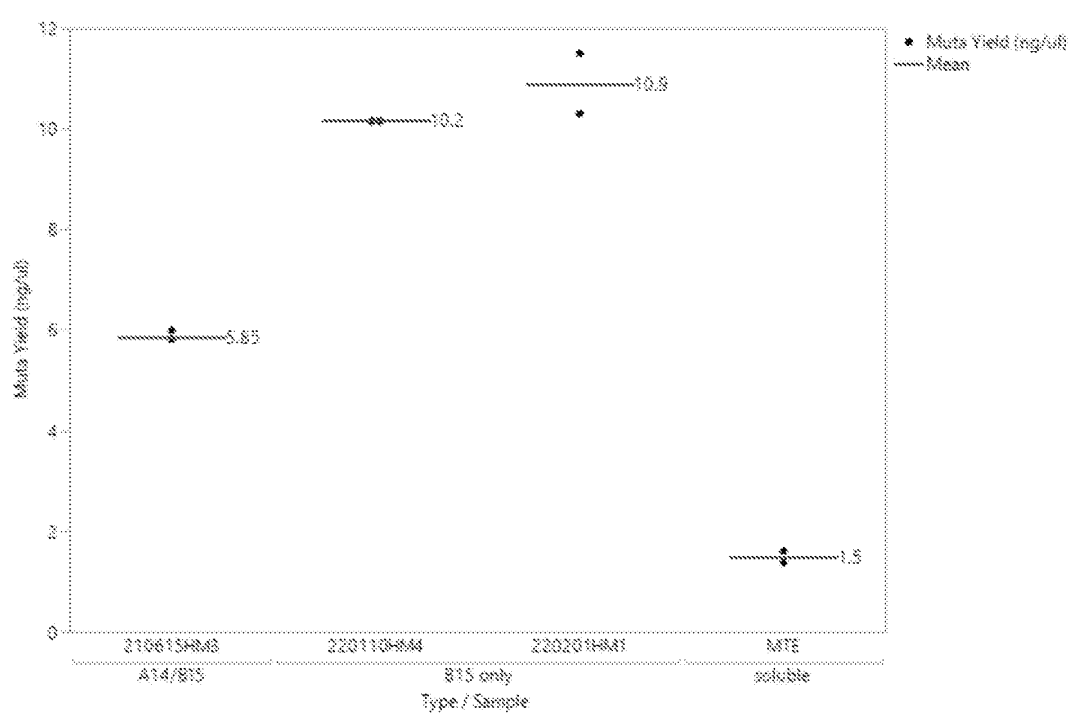


FIG. 7A

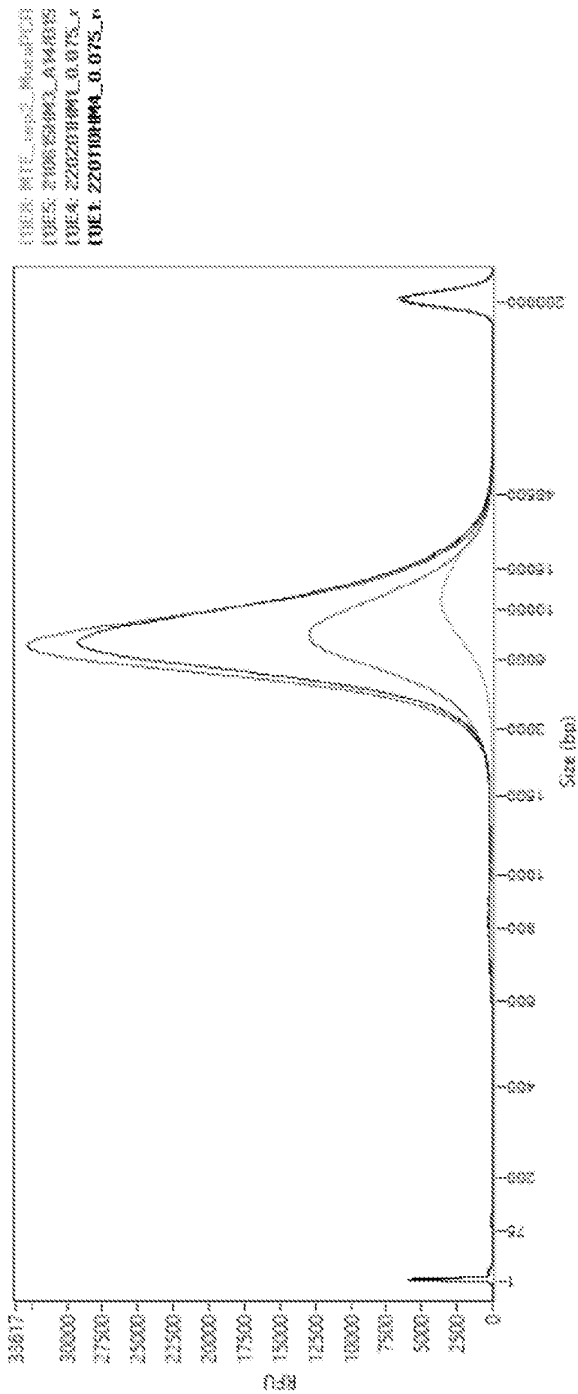


FIG. 7B

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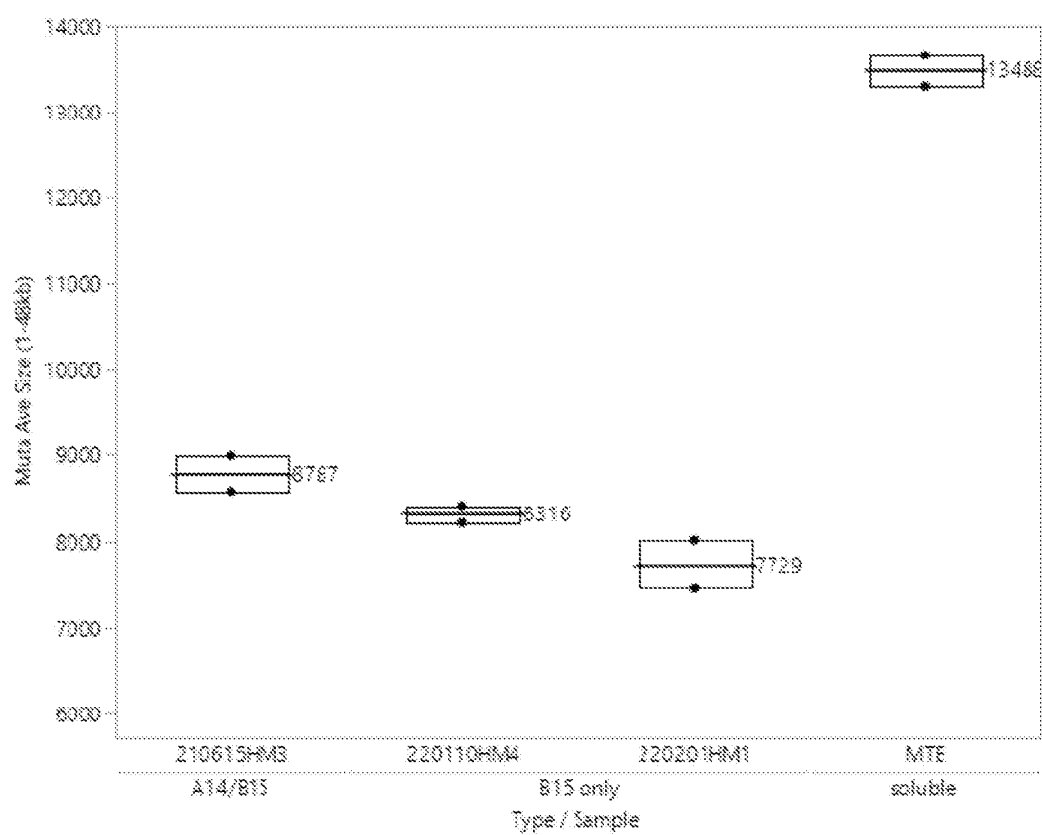


FIG. 7C

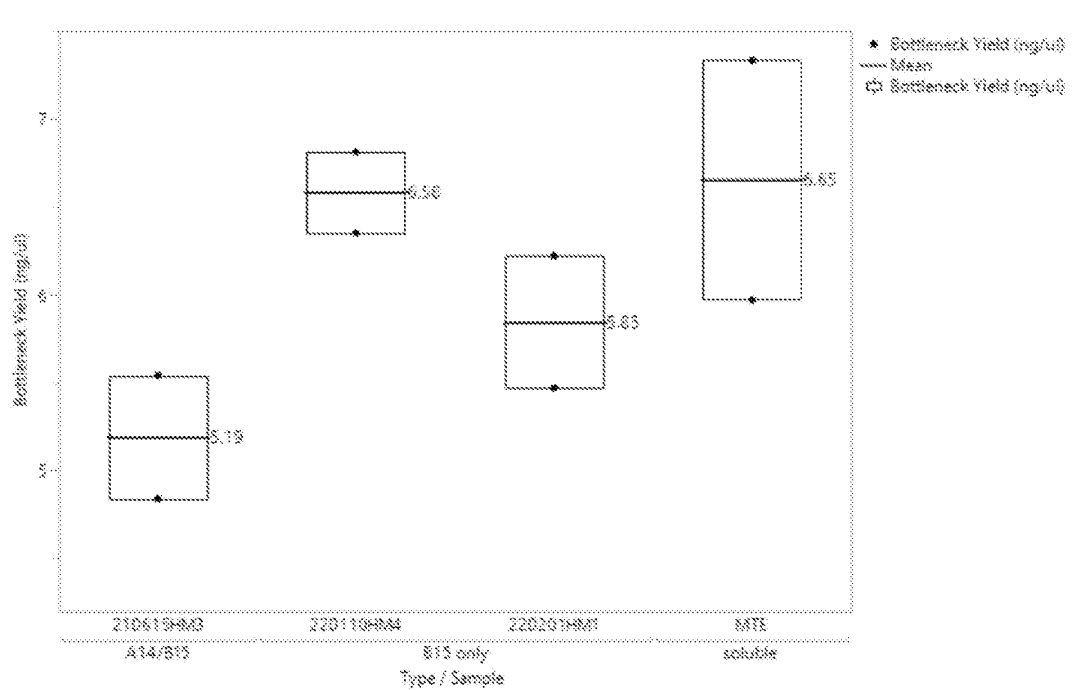


FIG. 8A

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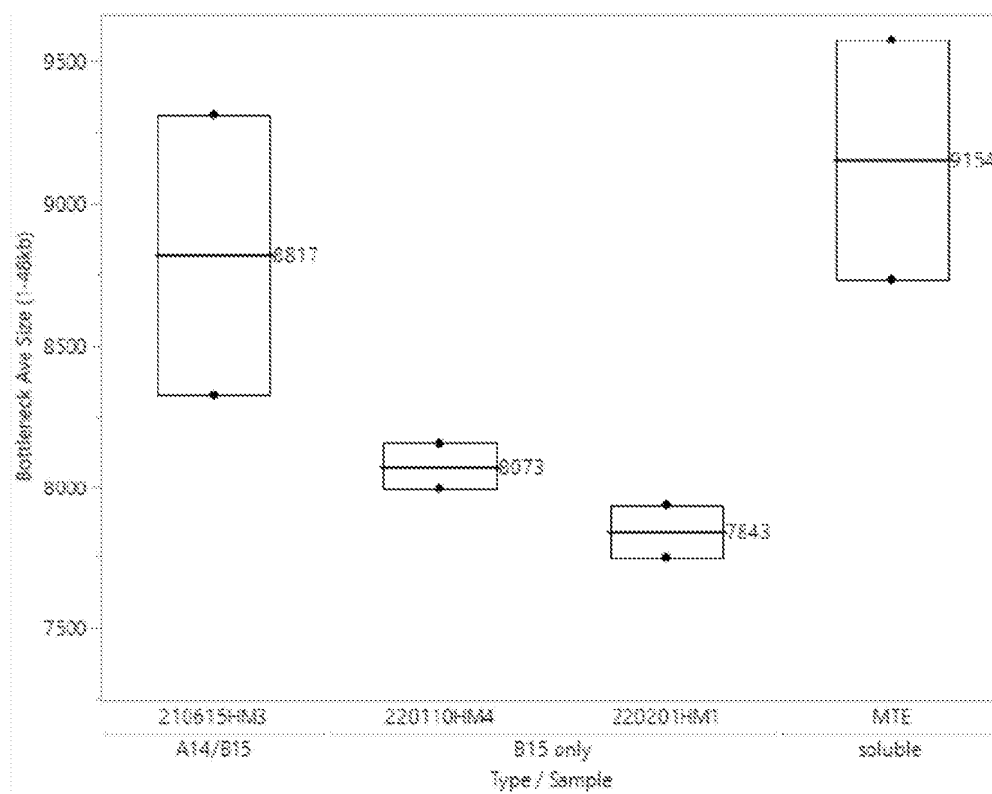


FIG. 8C

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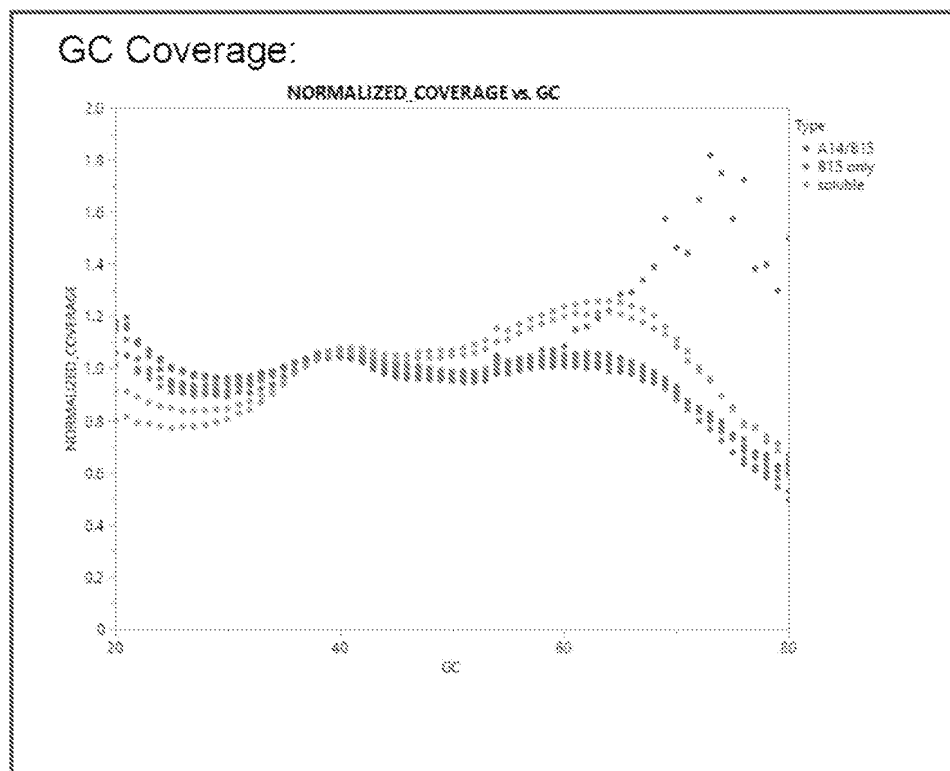


FIG. 9

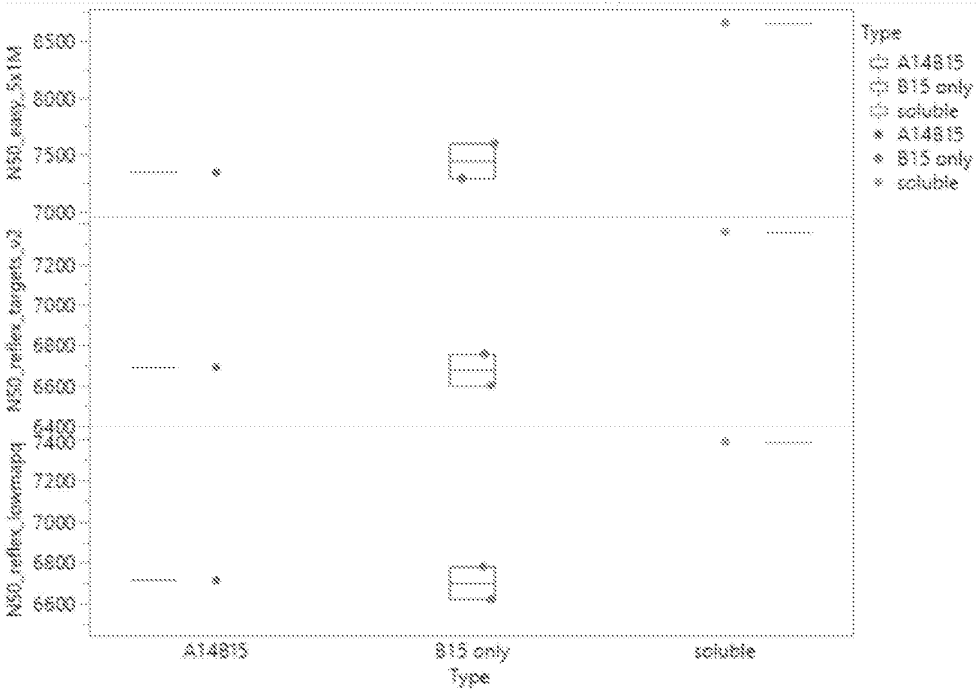


FIG. 10A

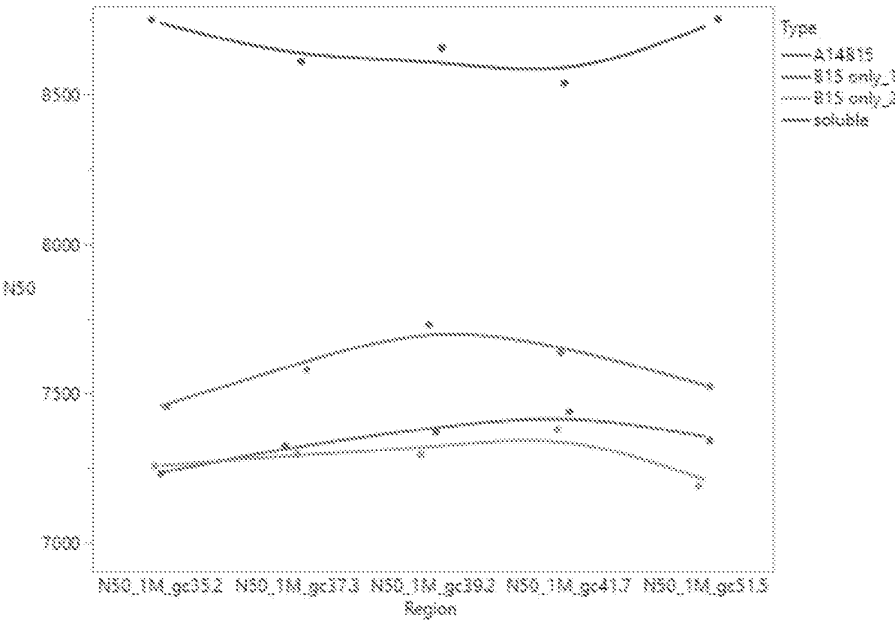


FIG. 10B

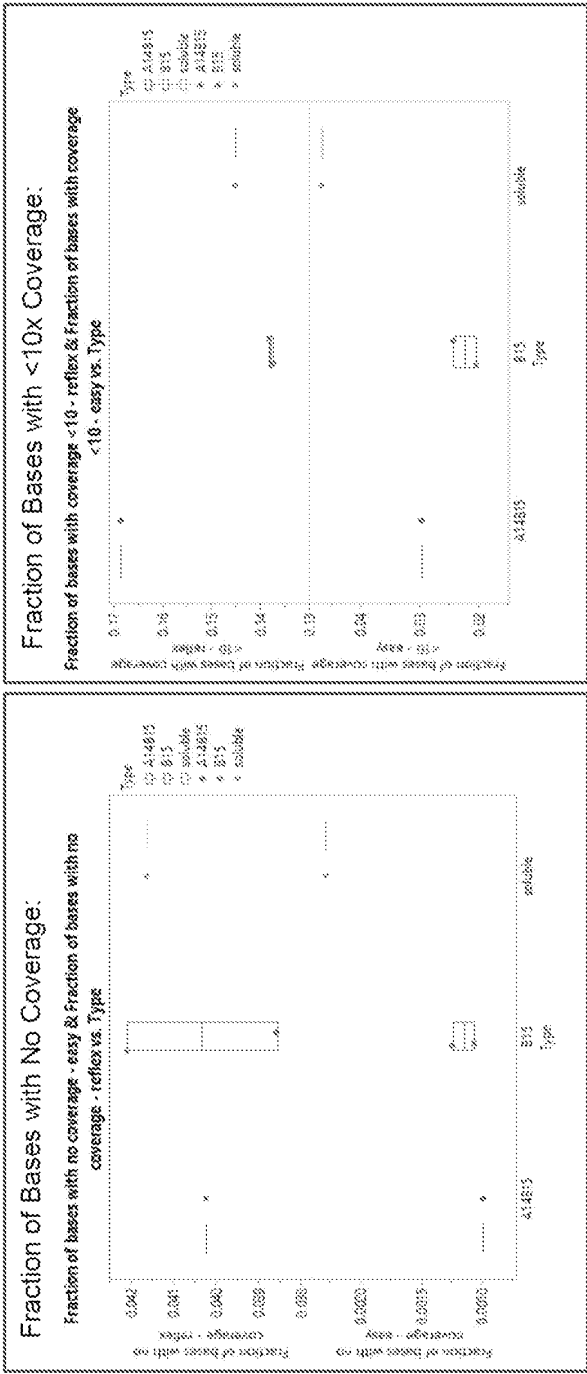


FIG. 11

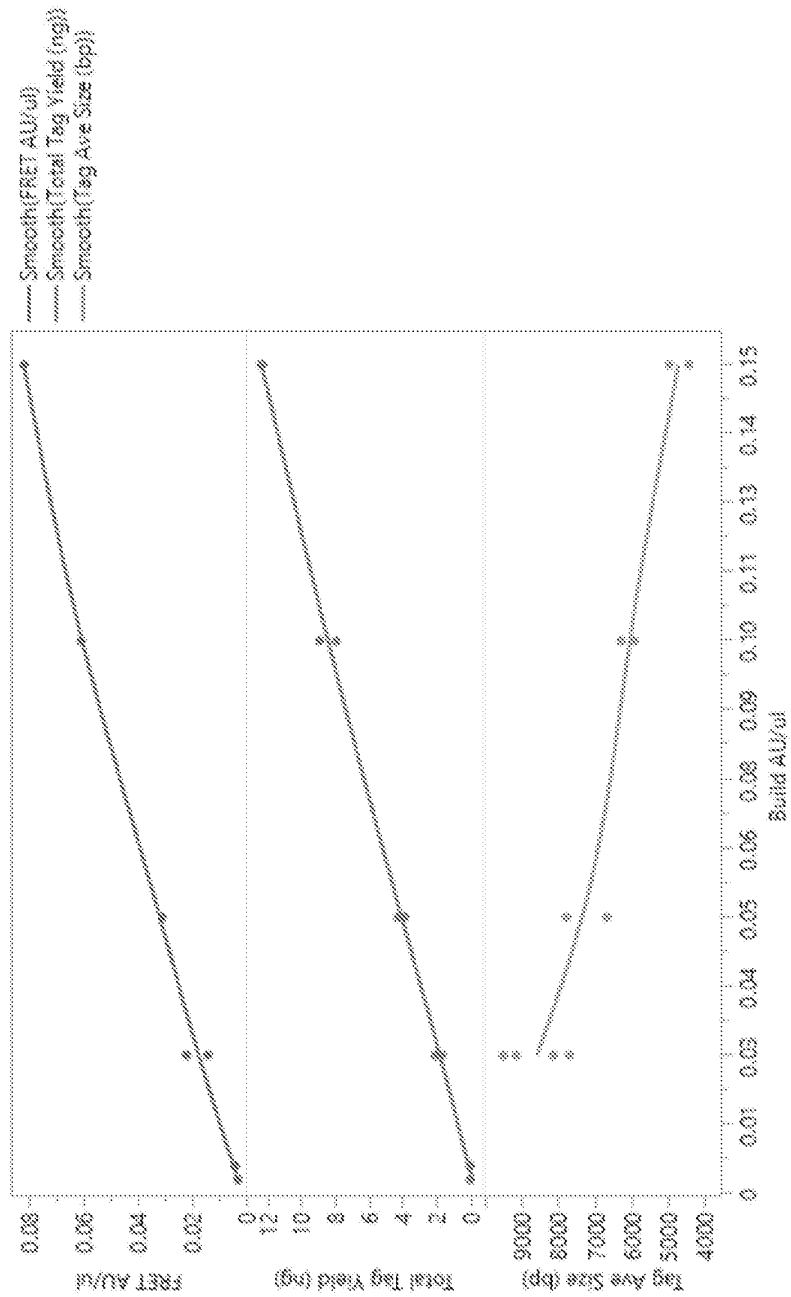


FIG. 12

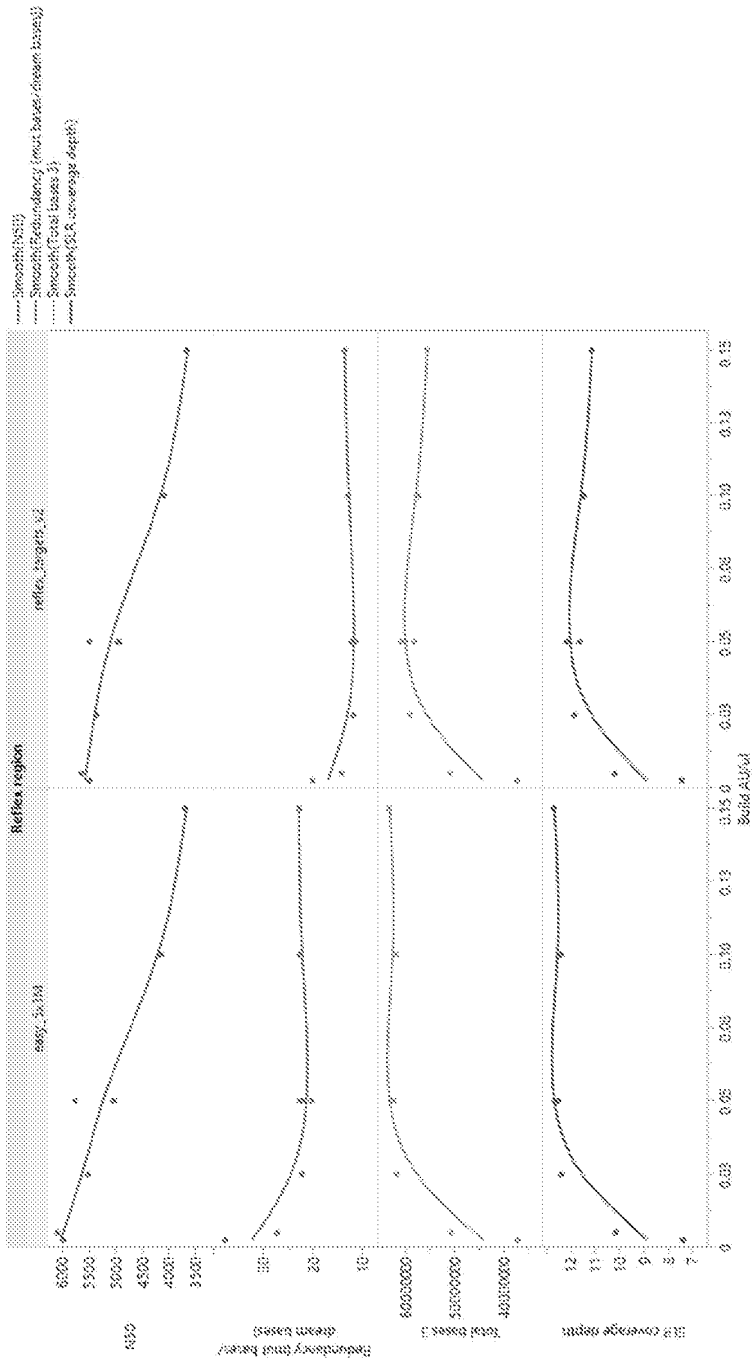


FIG. 13

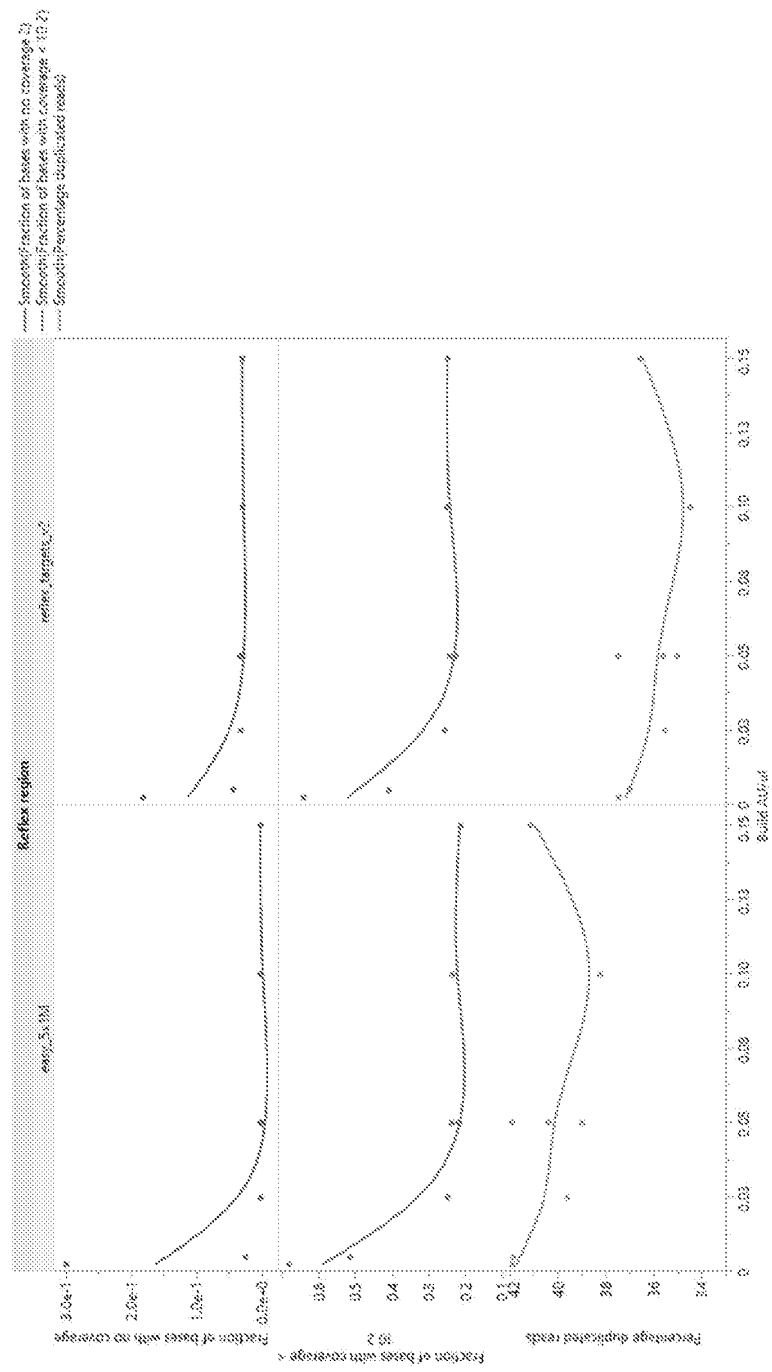


FIG. 14

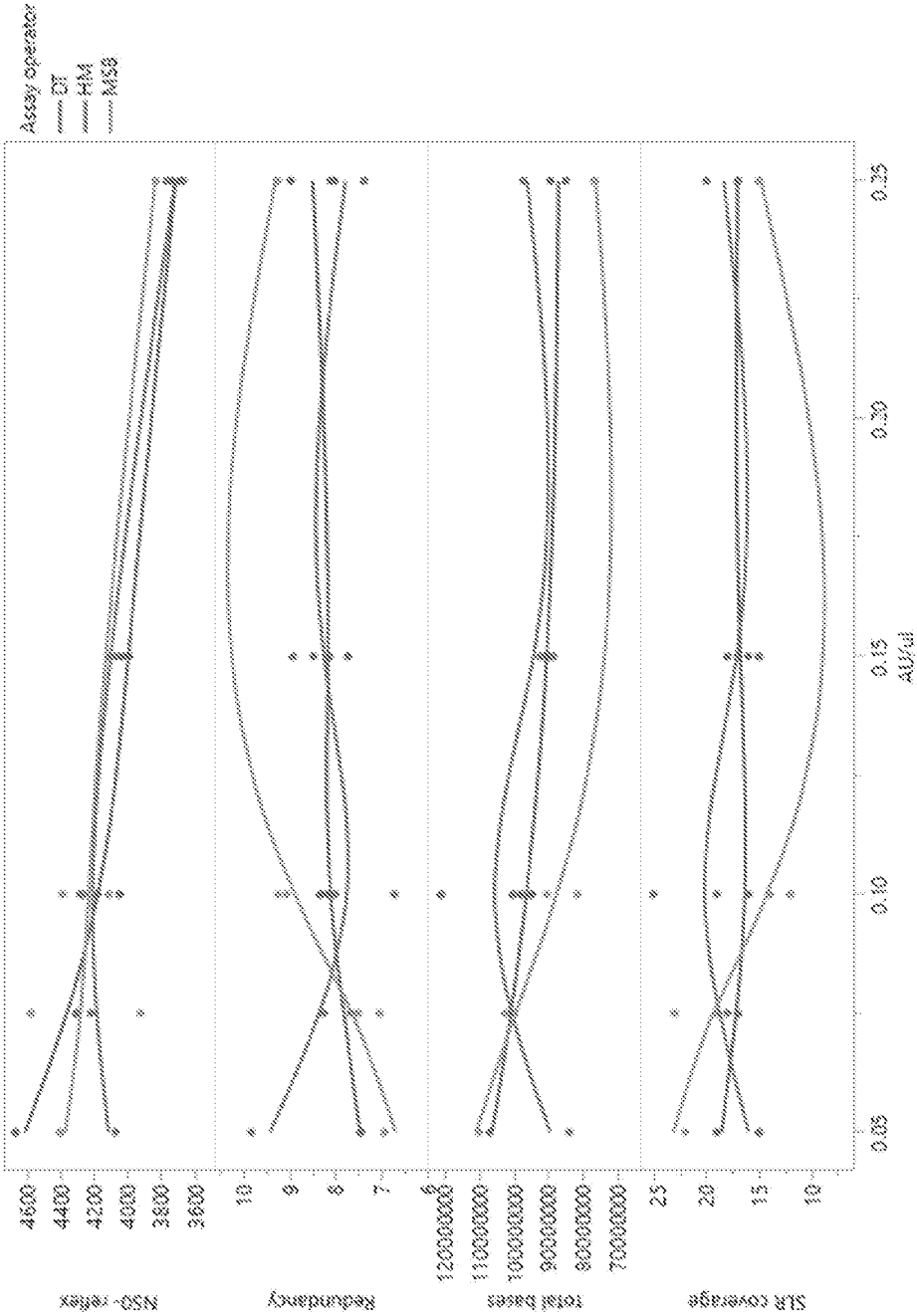
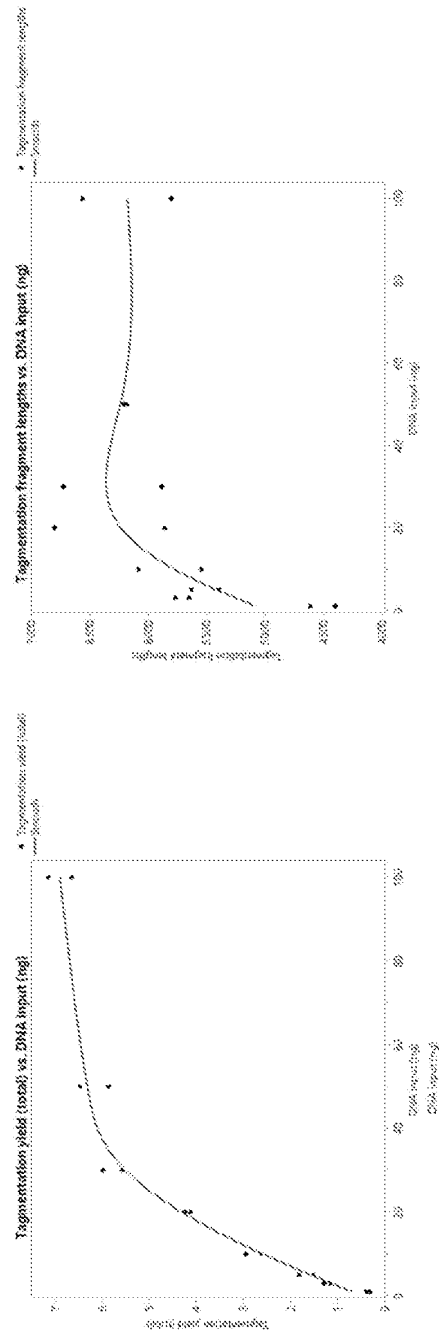
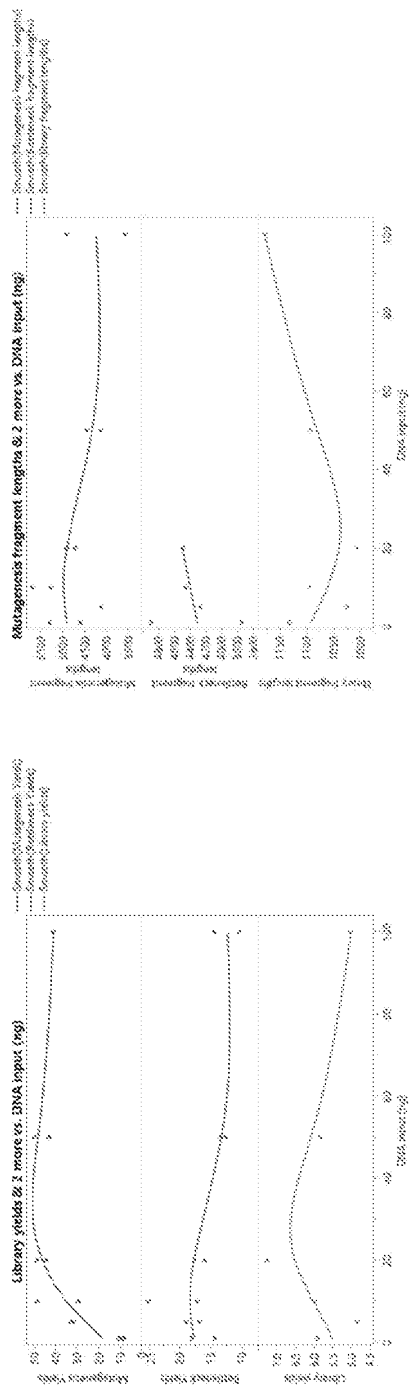


FIG. 15



Yield and fragment size plateaus after 20-30ng of input DNA

FIG. 16



- Yields reach maximum around 20ng of DNA input, fragment sizes unaffected by increased DNA input
- Sequence 1ng, 10ng, 20ng and 100ng to determine cliff edges for metrics

FIG. 17

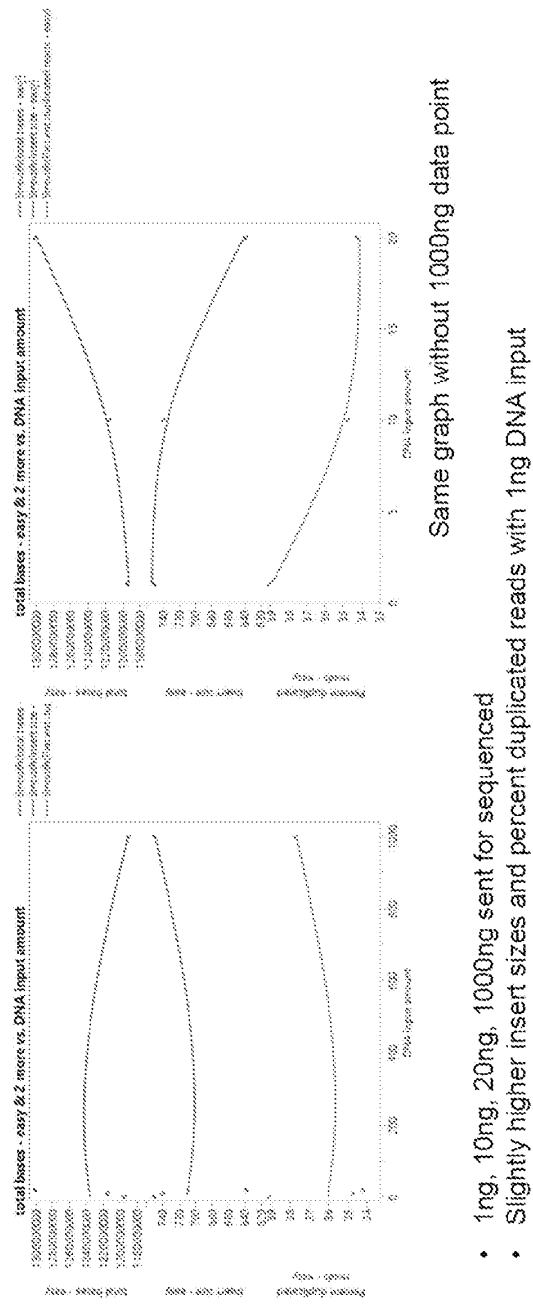
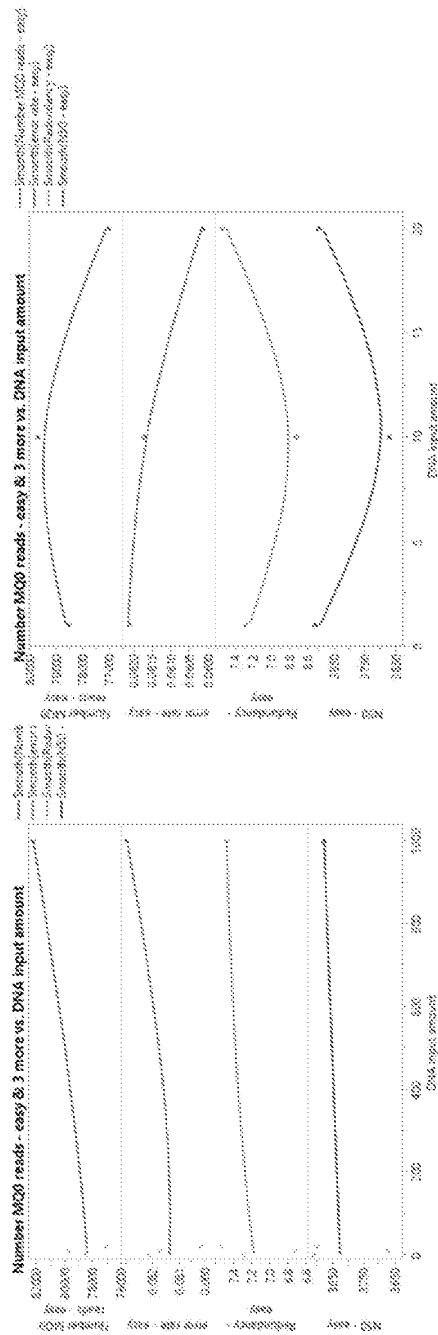
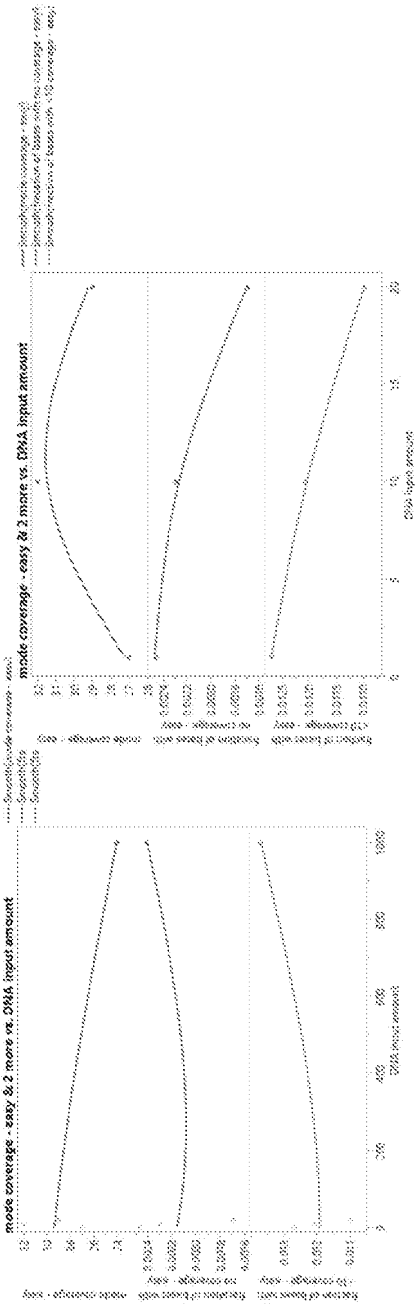


FIG. 18



Minimal differences observed in error rates, read quality, redundancy, or N50s

FIG. 19



- Similar coverage across all DNA input amounts, all points within normal variation
- Slight decrease in mode coverage as fraction with <0/10x increases

FIG. 20

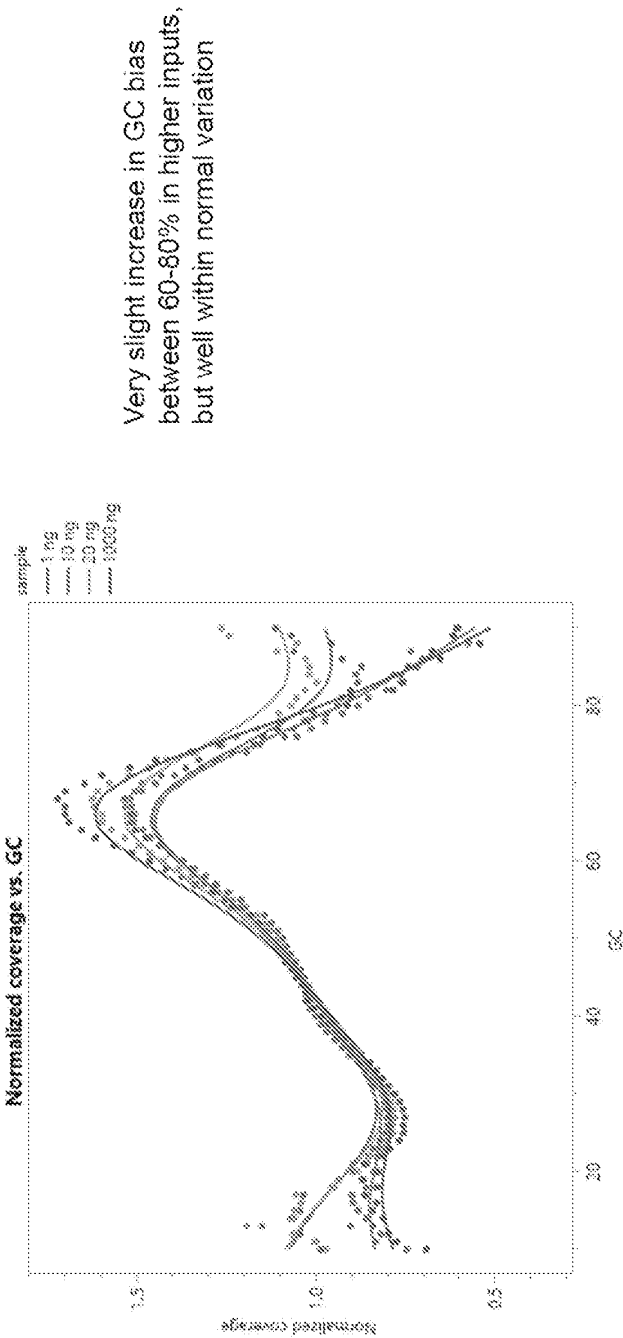


FIG. 21

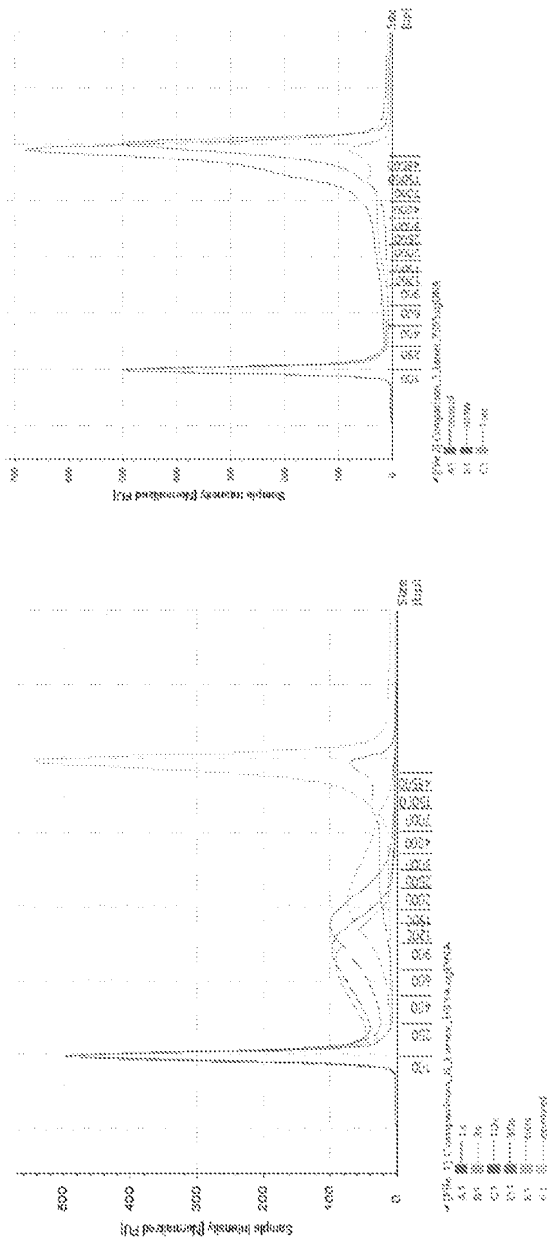
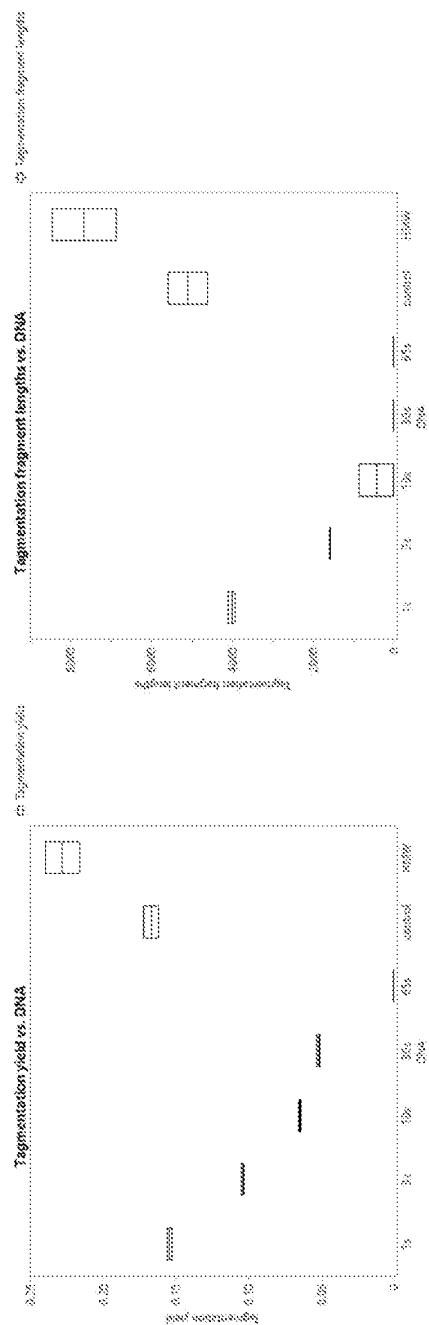
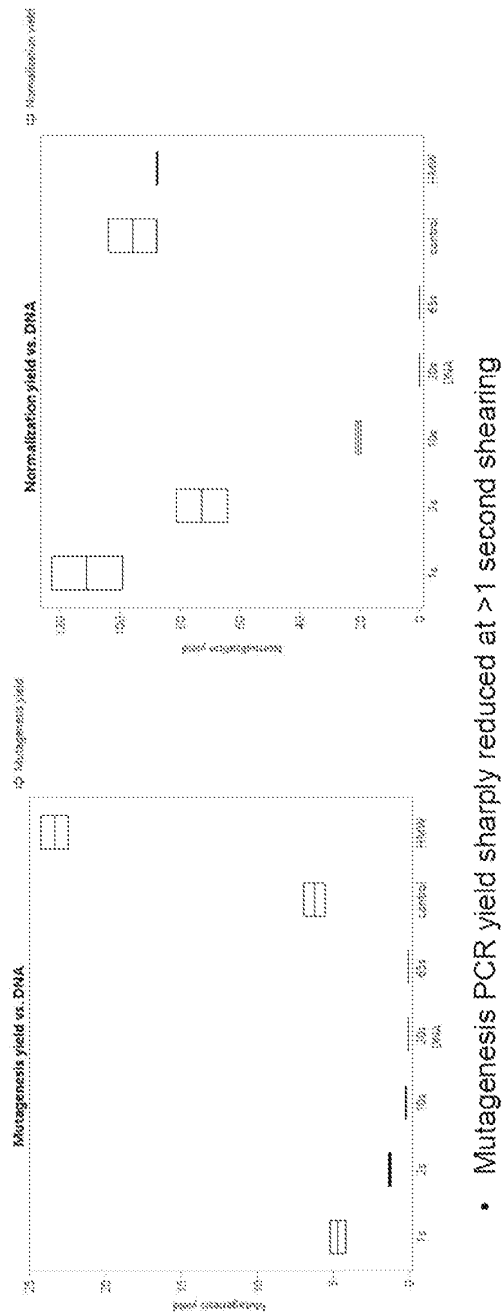


FIG. 22



- 1 second covaris-sheared DNA has similar fragment size and yield to control
- >1 second shearing quickly reduces size and yield

FIG. 23



• Mutagenesis PCR yield sharply reduced at >1 second shearing

FIG. 24A

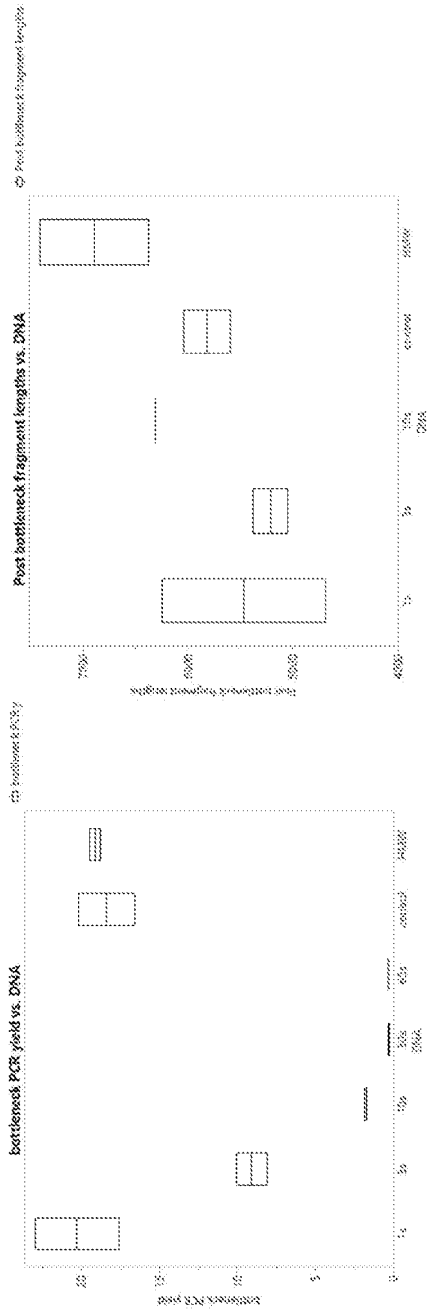
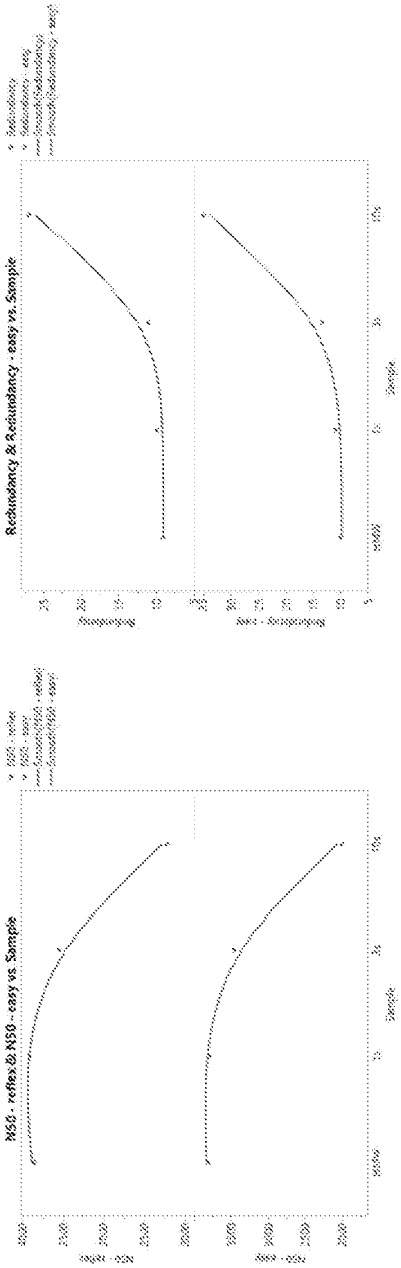
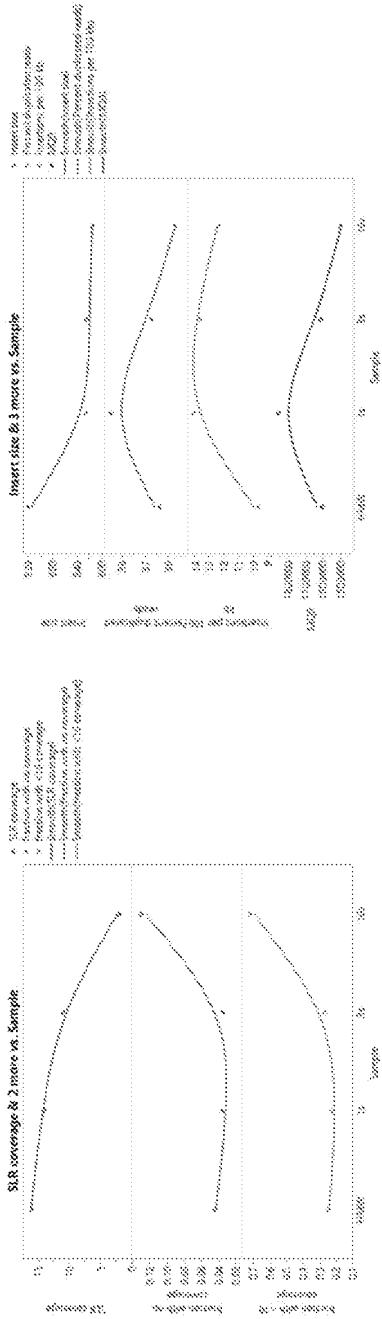


FIG. 24B



• N50s decline and redundancy increases at > 3 seconds shearing

FIG. 25



• Coverage metrics decline > 3 seconds shearing

FIG. 26

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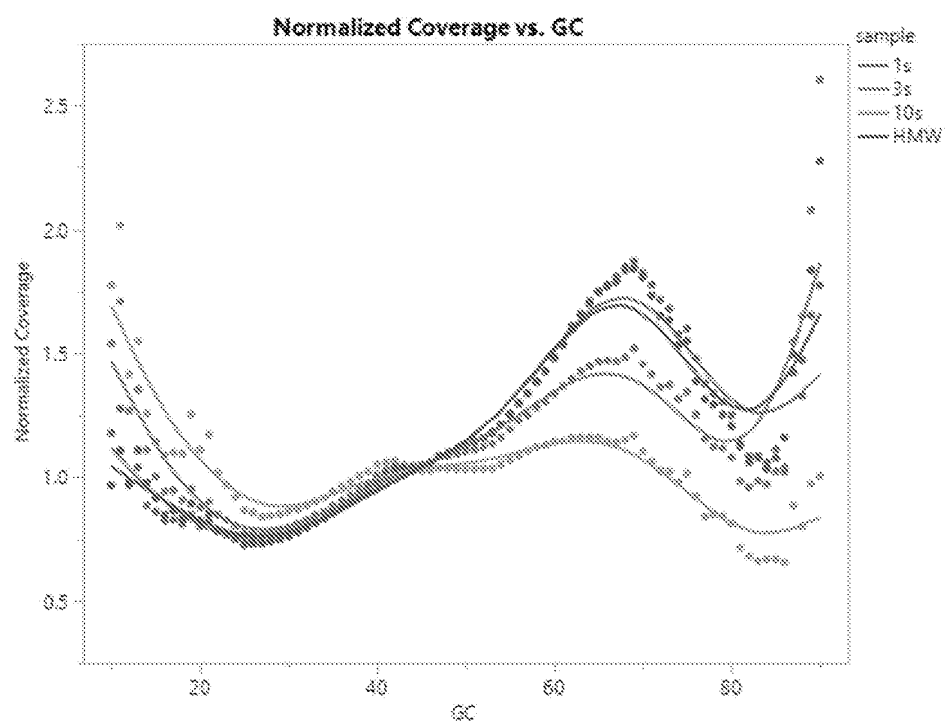
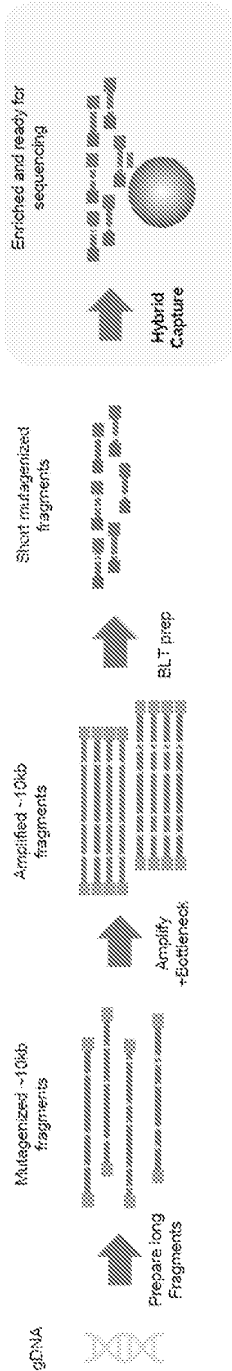


FIG. 27

Short Fragment Enrichment



Long Fragment Enrichment

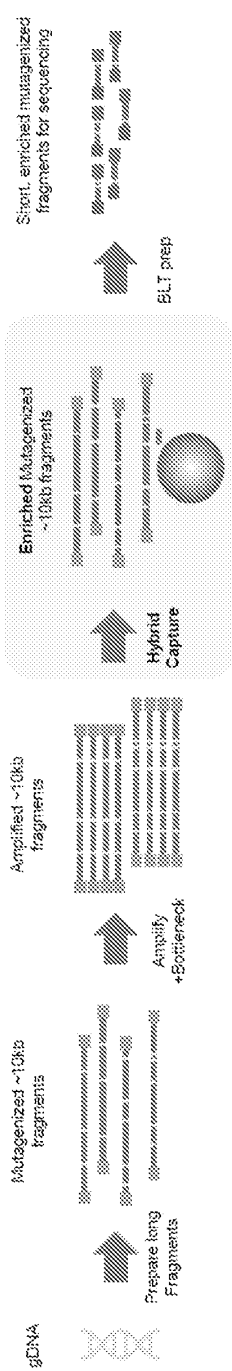


FIG. 28

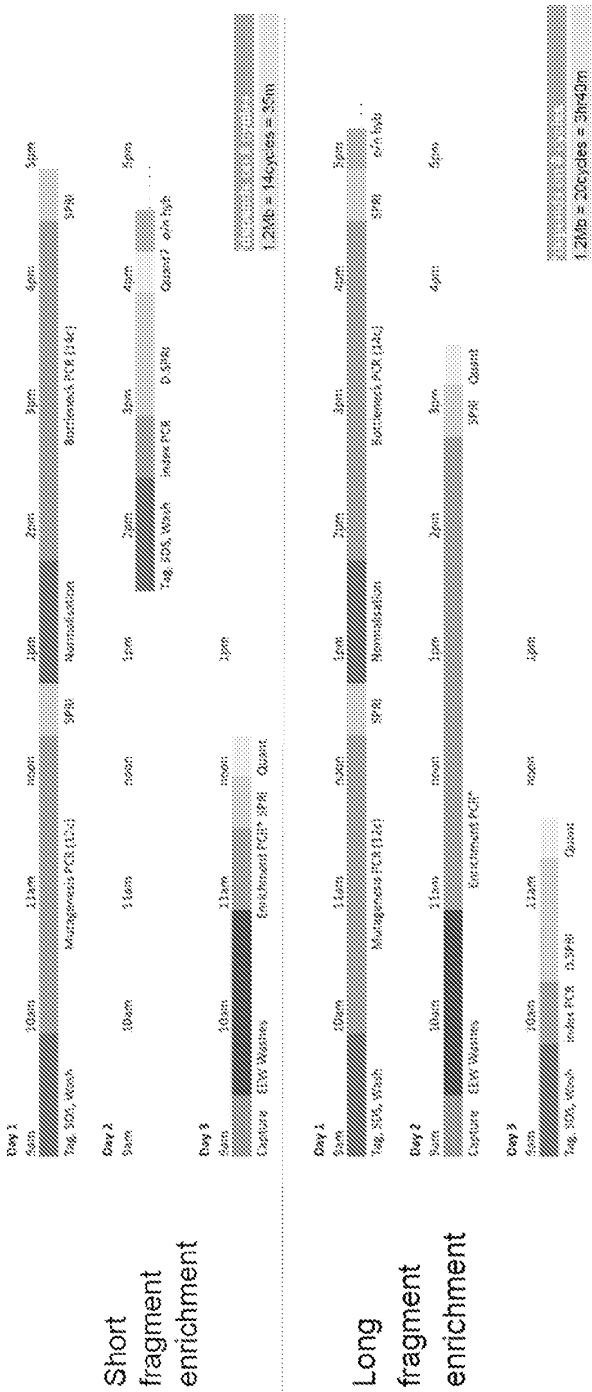


FIG. 29

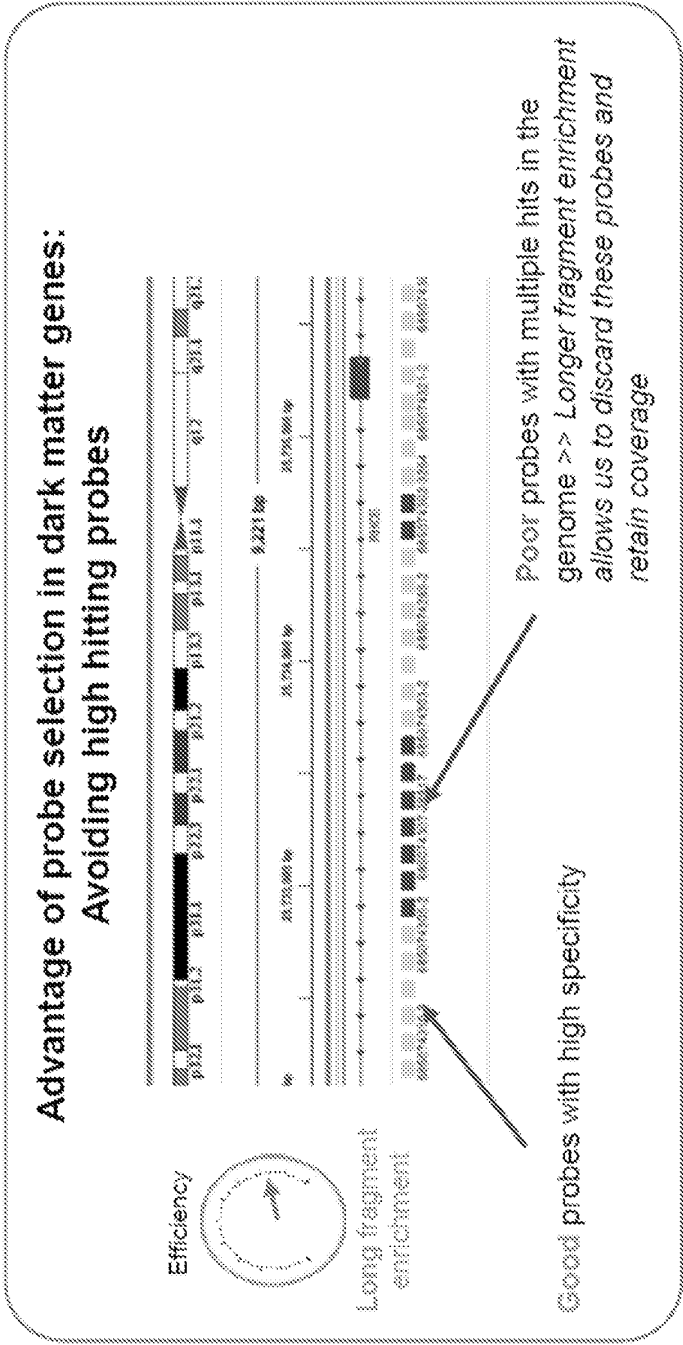


FIG. 30

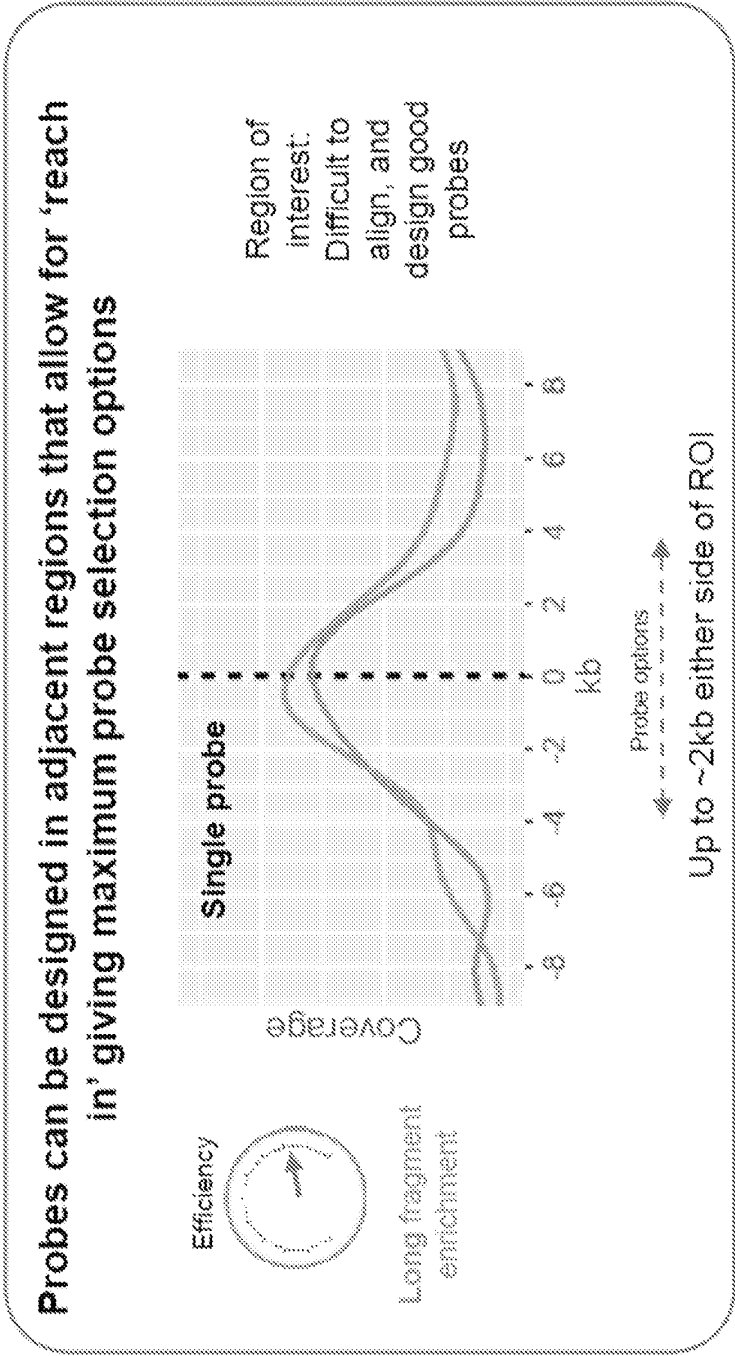


FIG. 31

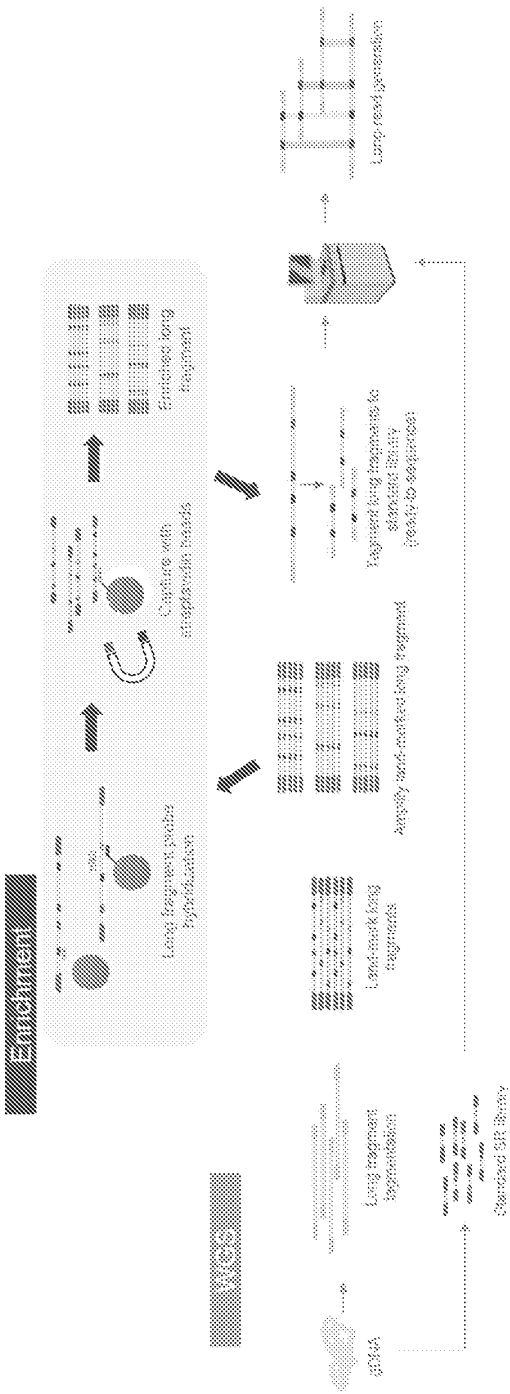


FIG. 32

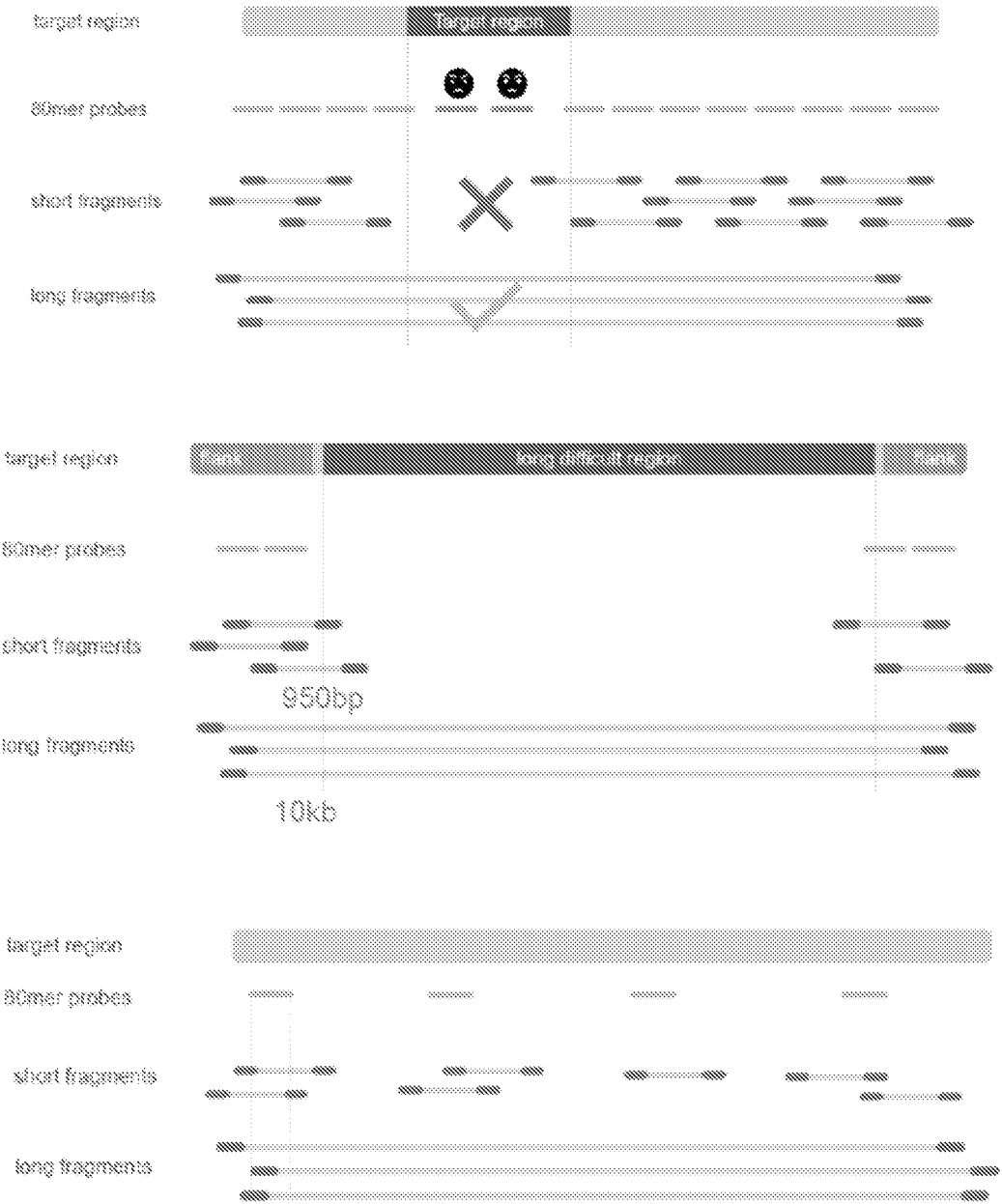


FIG. 33

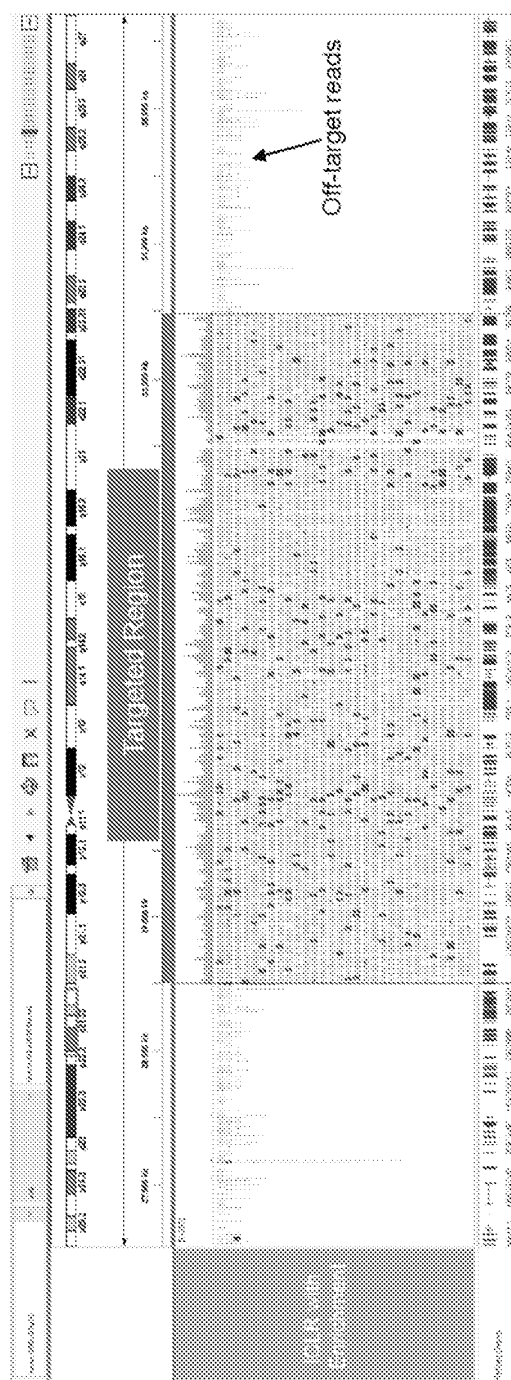


FIG. 34

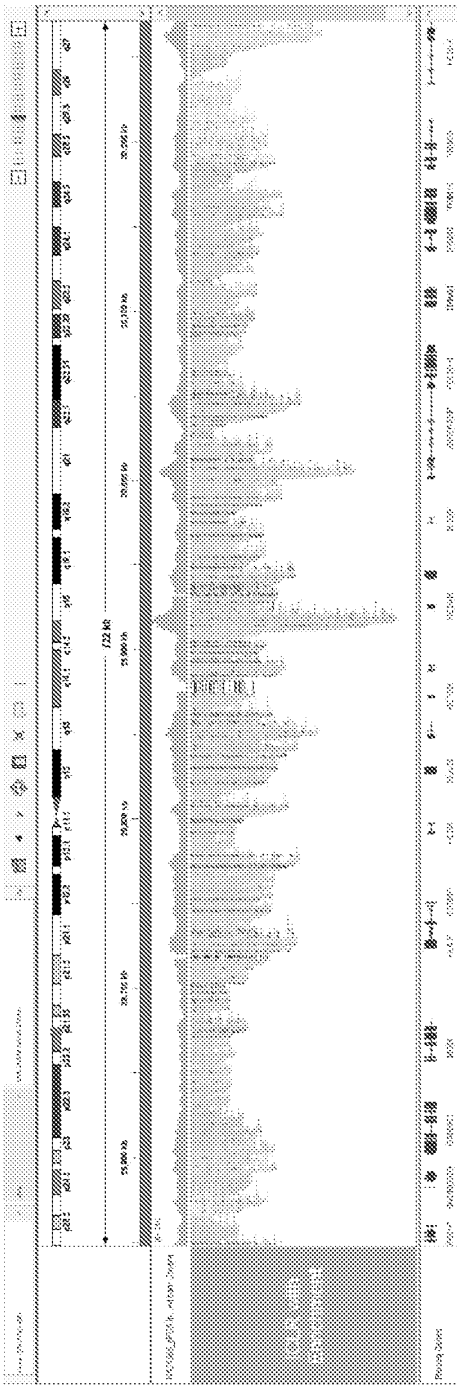


FIG. 35

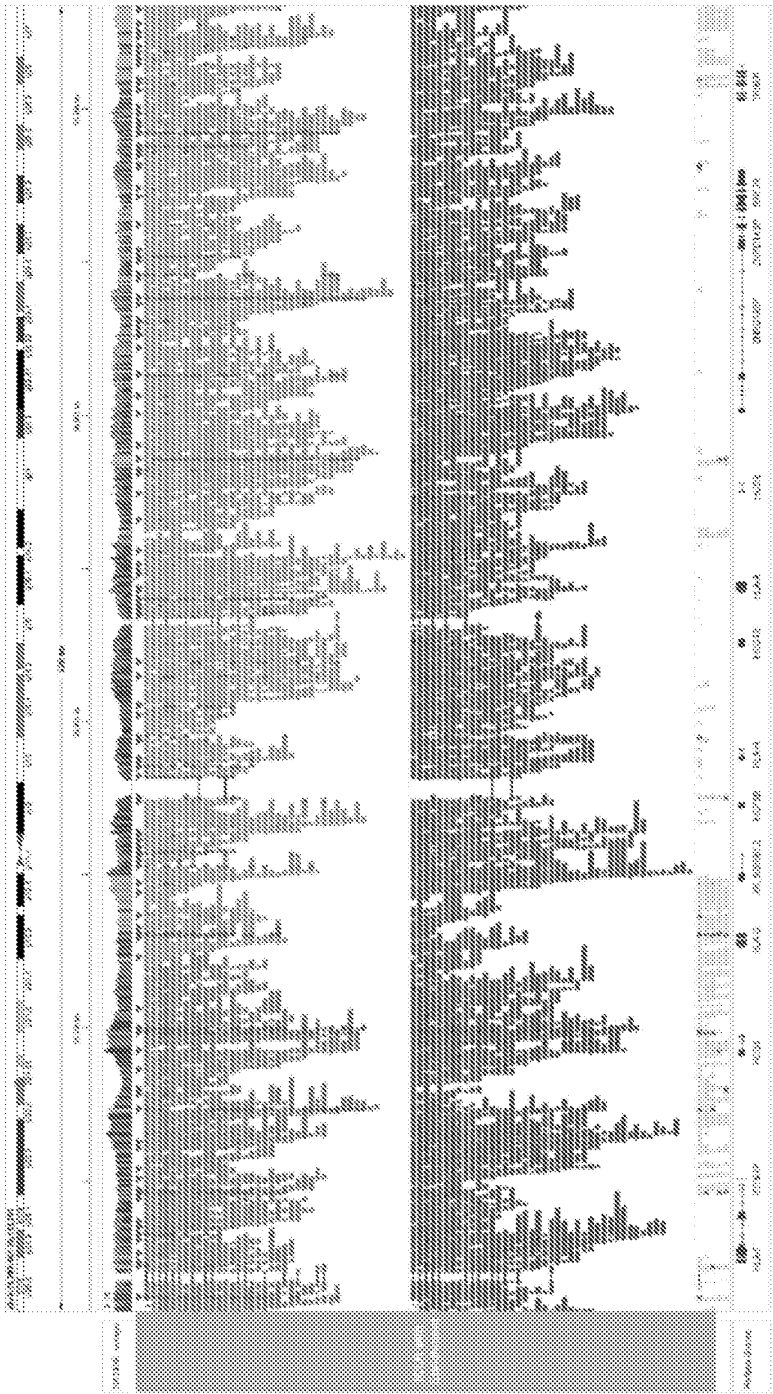
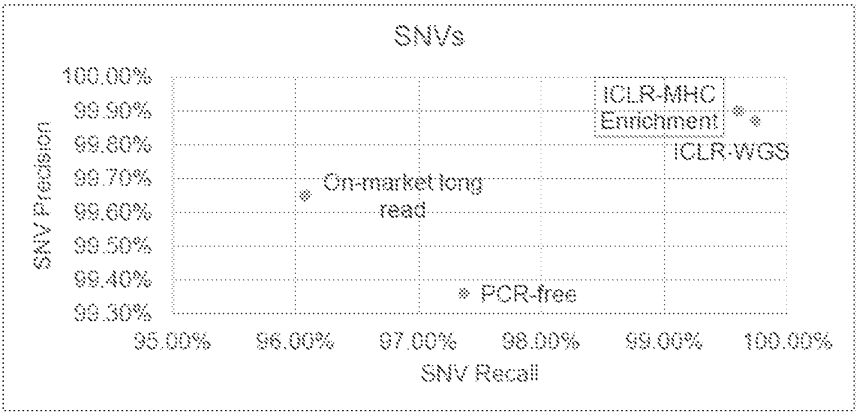
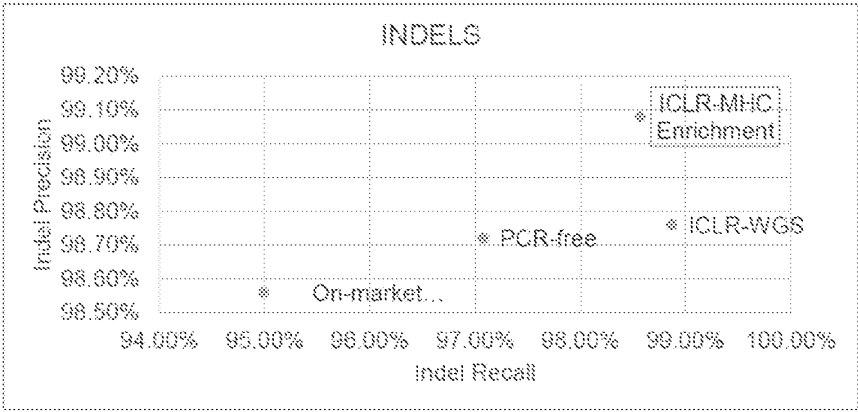


FIG. 36



F-1: 99.67%

FIG. 37A



F-1: 98.71%

FIG. 37B

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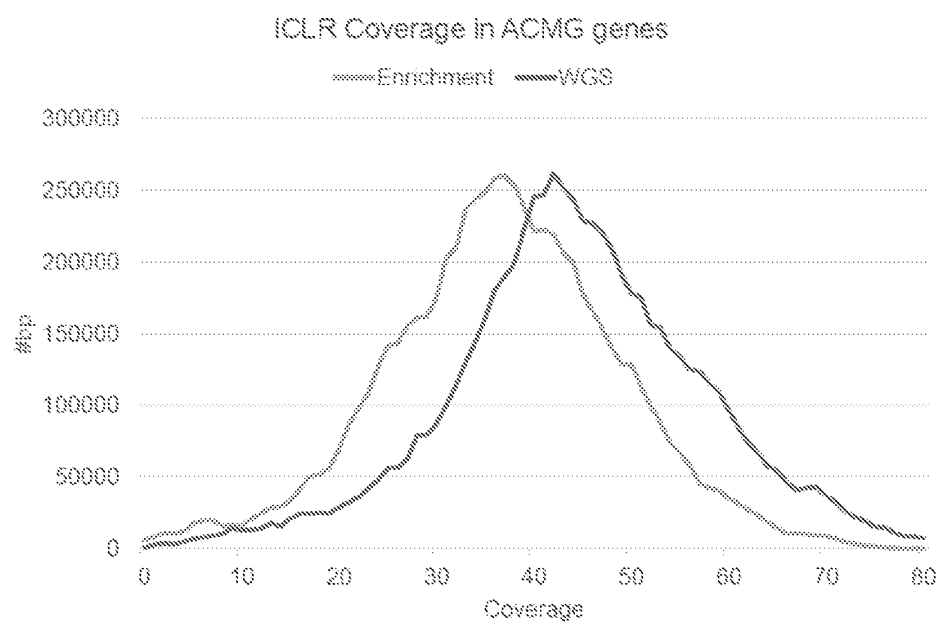


FIG. 38

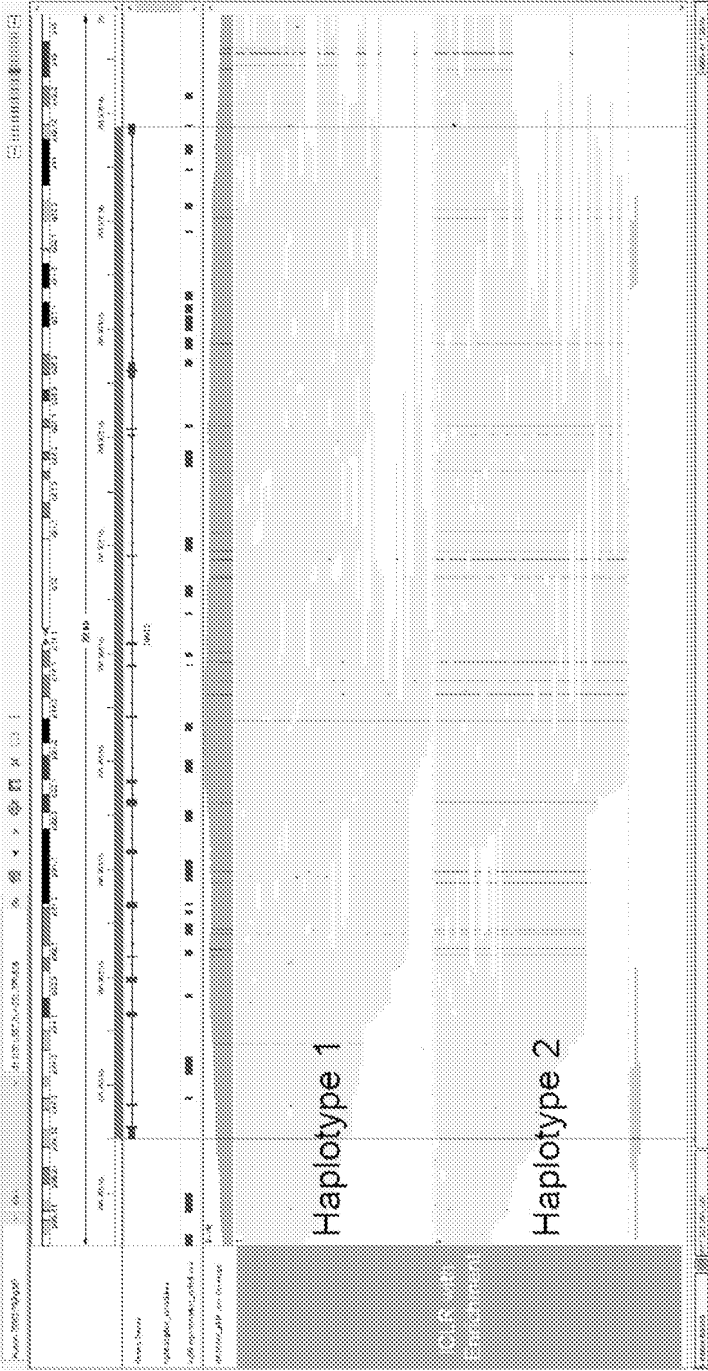
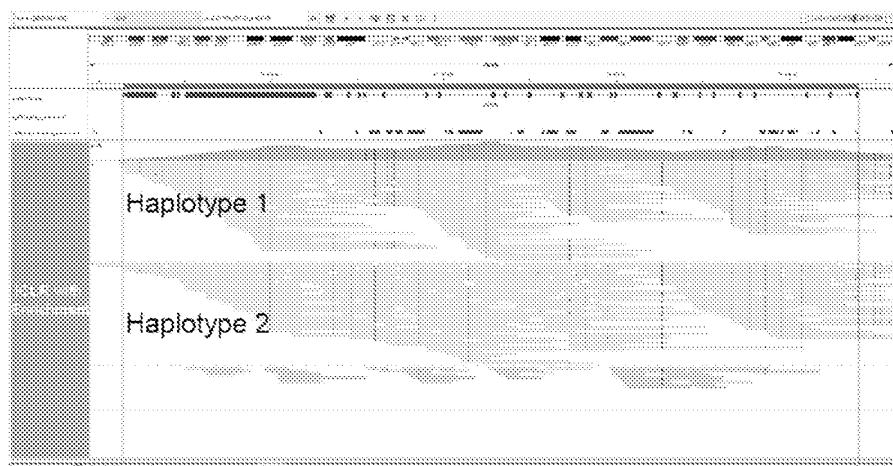


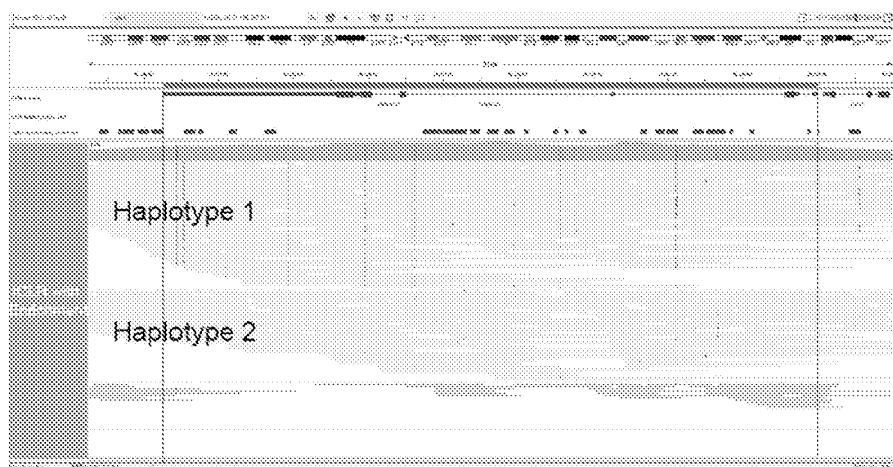
FIG. 39

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APOB (46kb)

FIG. 40A



TMEM127 (21kb)

FIG. 40B

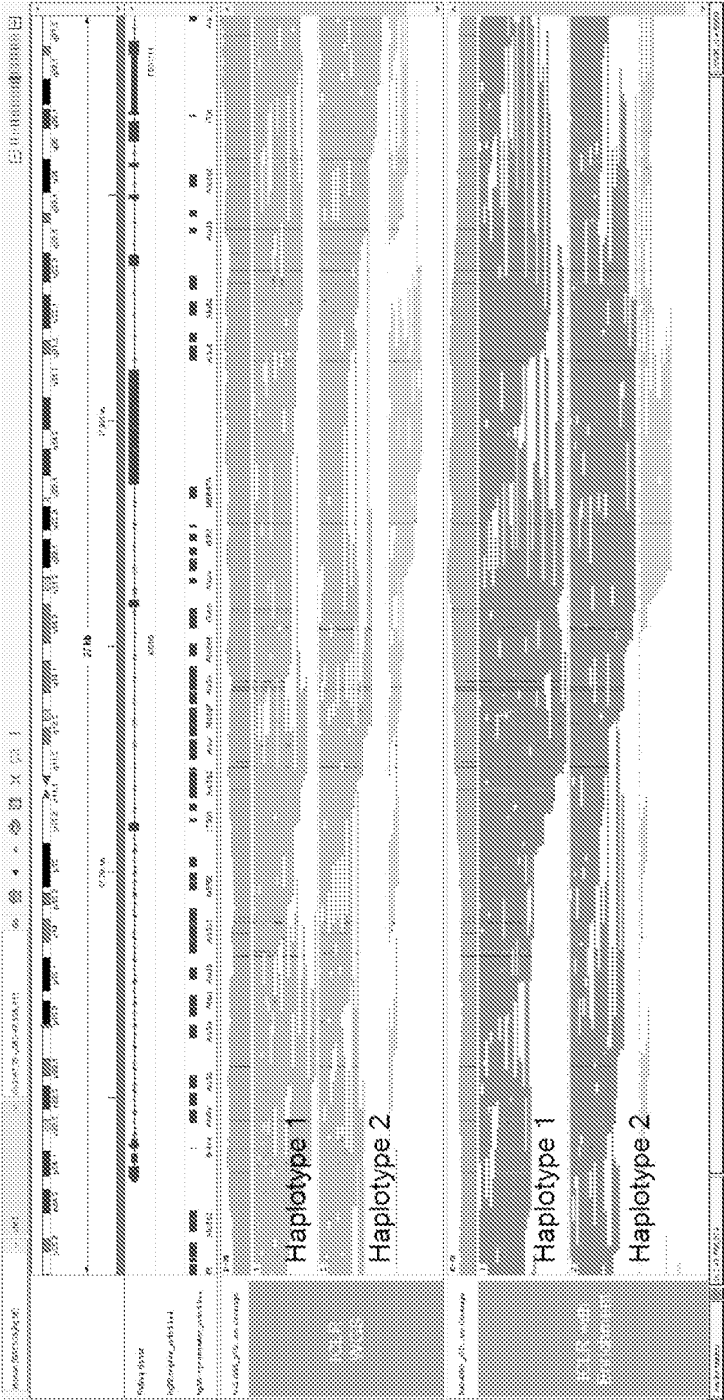
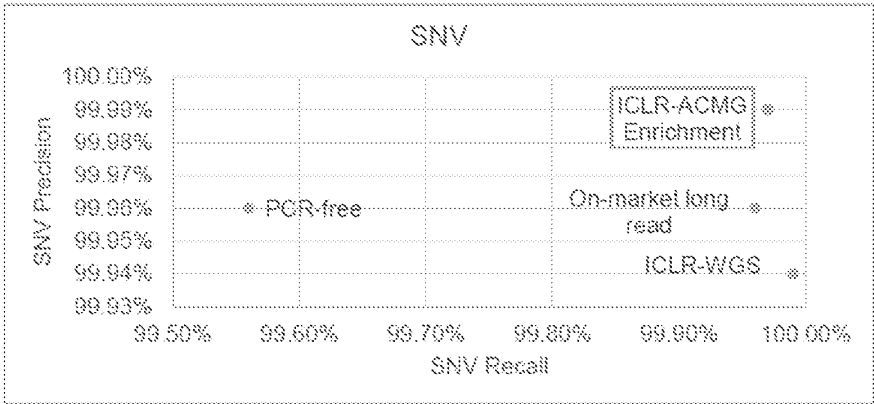
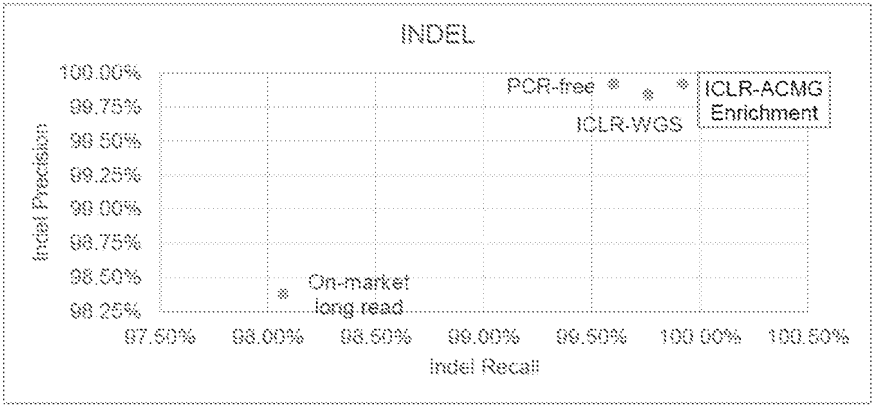


FIG. 41



F-1: 99.98%

FIG. 42A



F-1: 99.8%

FIG. 42B

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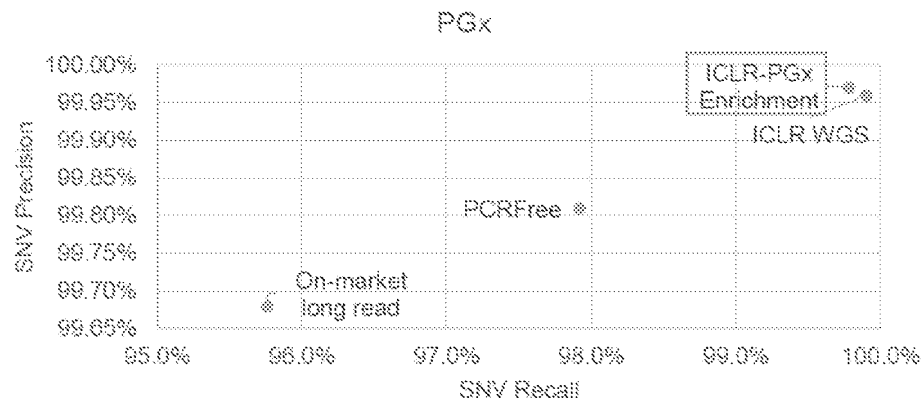


FIG. 43A

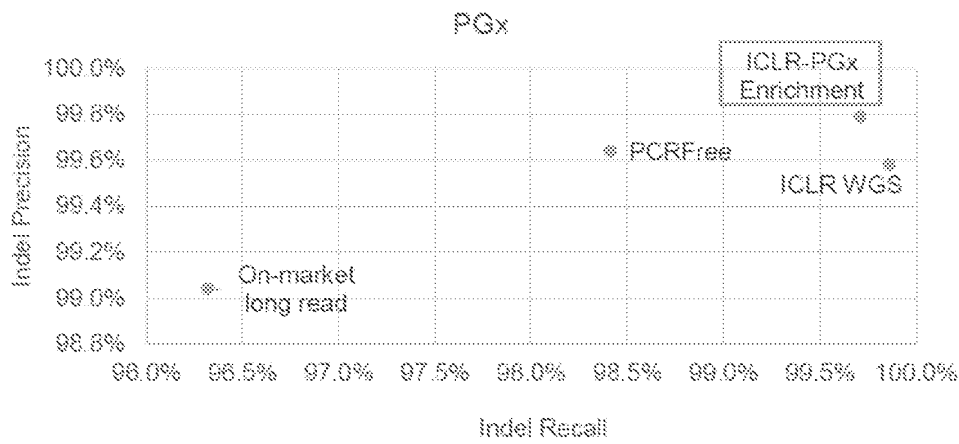


FIG. 43B

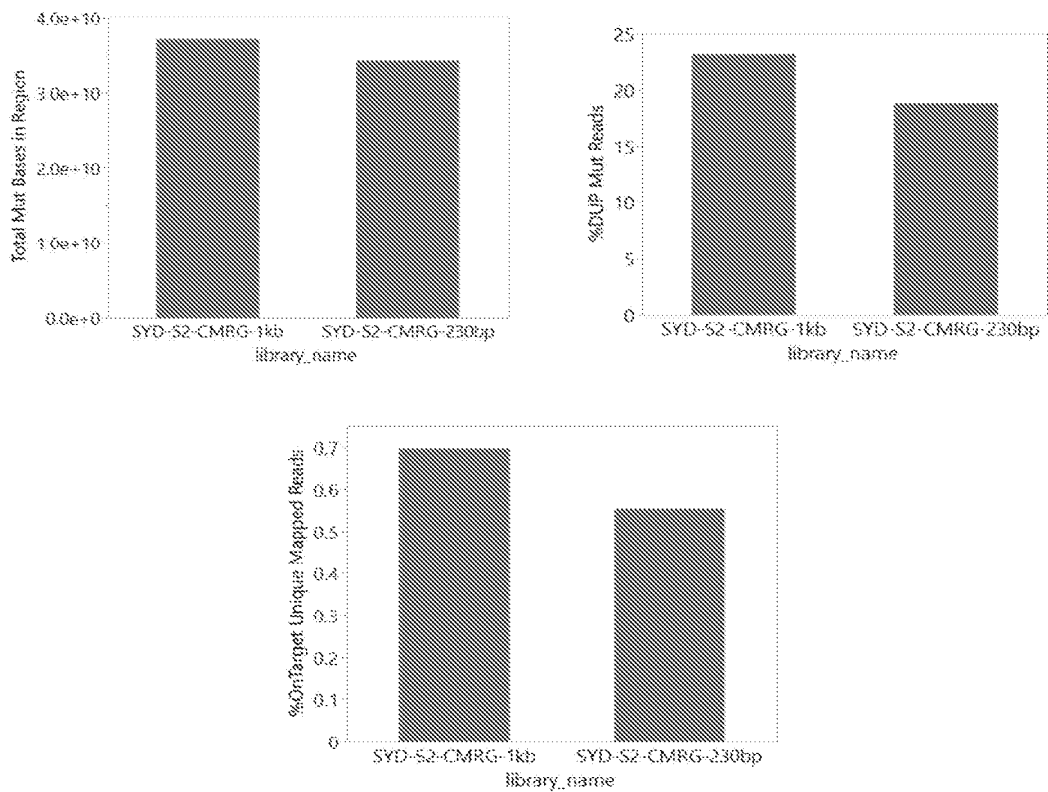


FIG. 44A

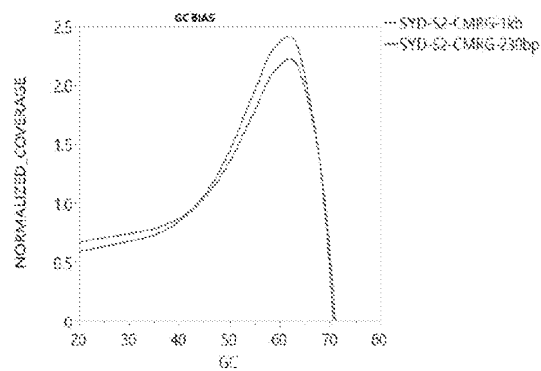


FIG. 44B

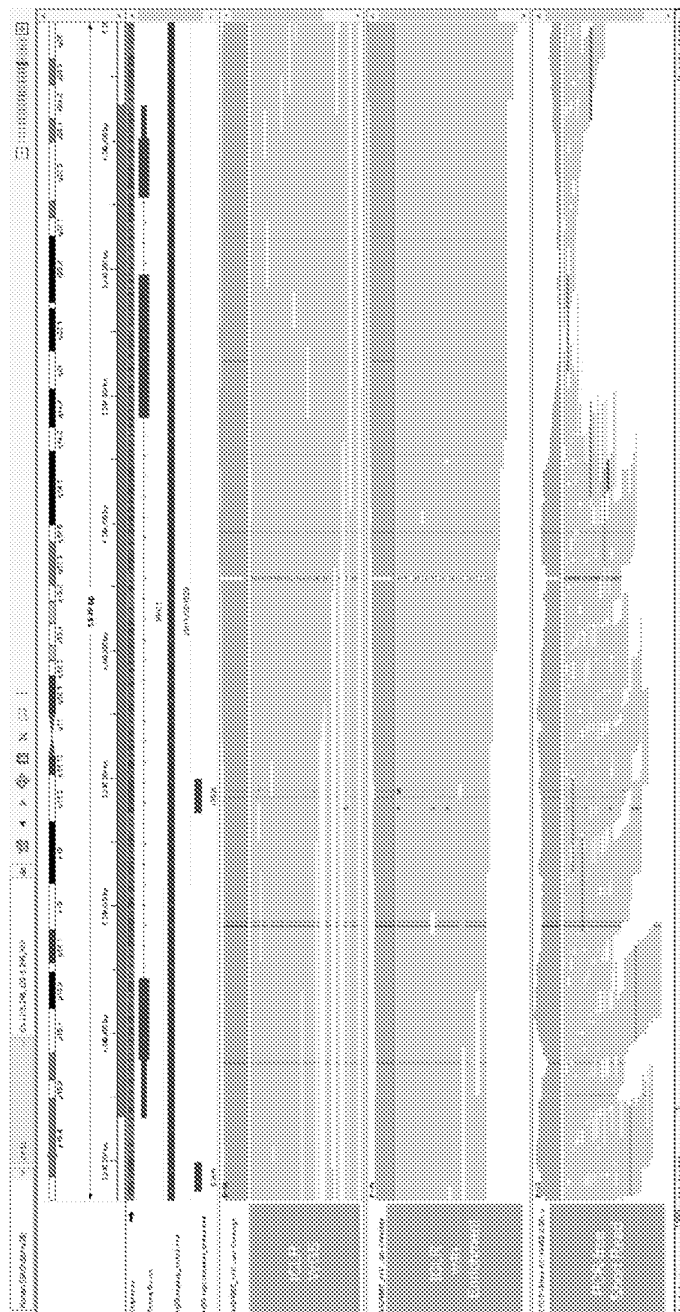


FIG. 44C

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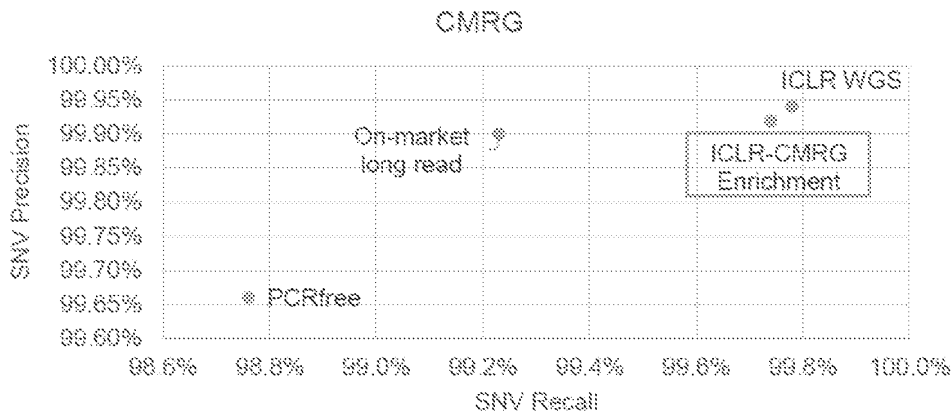


FIG. 45A

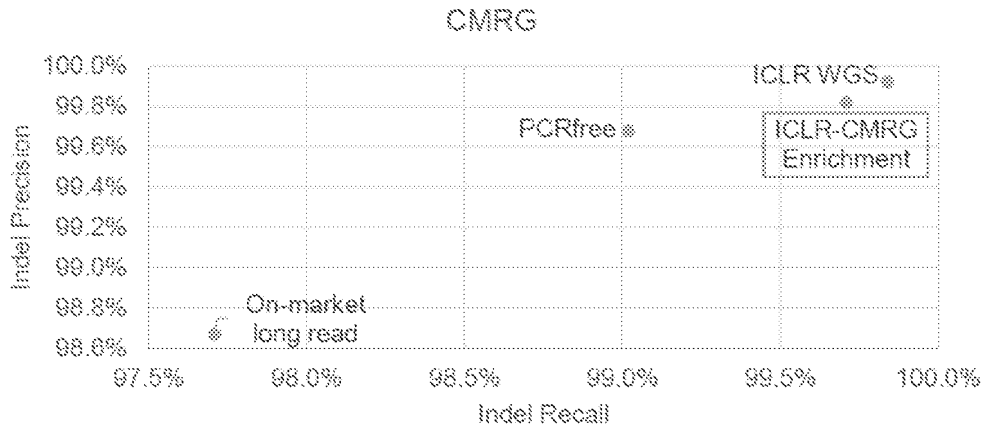


FIG. 45B