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(54) Title: ENRICHMENT OF CLINICALLY-RELEVANT NUCLEIC ACIDS

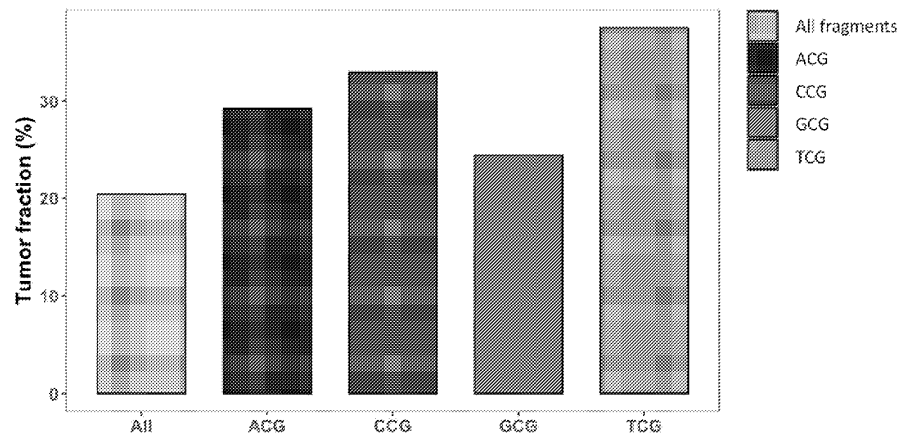


FIG. 15A

(57) Abstract: Techniques are provided for enriching samples for clinically-relevant cell-free (cfDNA), e.g., for downstream analysis. For example, cell-free DNA molecules having NCG end motifs can be selected, as such a subset has an increased proportion of the clinically-relevant cfDNA. Such NCG cfDNA molecules can be further selected based on size and/or location at tissue-specific hypomethylated sites for further enrichment. As another example, cell-free DNA molecules having CGN end motifs can be selected, as such a subset can have an increased proportion of the clinically-relevant cfDNA when located at tissue-specific hypermethylated sites. Such CGN cfDNA molecules can be further selected based on size.

[Continued on next page]

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