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(54) Title: METHODS FOR DETECTING AND TREATING ESOPHAGEAL CANCER

(57) Abstract: The present invention relates to the field of cancer. More specifically, the present invention provides compositions and methods useful for detecting and treating esophageal cancer. In a specific embodiment, a method for identifying a subject having esophageal squamous cell carcinoma (ESCC) comprises (a) extracting genomic DNA from a sample obtained from the subject; (b) performing a conversion reaction on the genomic DNA in vitro to convert unmethylated cytosine to uracil by deamination; and (c) detecting nucleic acid methylation of one or more genes in the converted genomic DNA, wherein detecting nucleic acid methylation identifies the subject as having ESCC. The one or more genes can comprise ZNF542, ZNF132, cg20655070, TAC1 and SLC35F1. In a more specific embodiment, the one or more genes comprise ZNF542 and ZNF132 and can further comprise detecting the nucleic acid methylation of one or more of cg20655070, TAC1 and SLC35F1.



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