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(54) Title: A METHOD OF PREDICTING SURVIVAL OUTCOME OF A SUBJECT HAVING HEPATOCELLULAR CARCINO-
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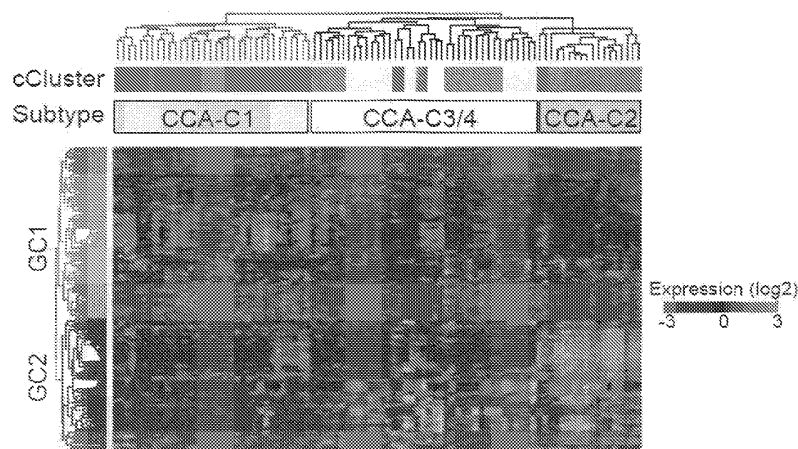


Figure 2A

(57) **Abstract:** The present disclosure provides a method for generating a predictive survival outcome of a subject affected of liver cancer. The method preferably comprises providing a tissue specimen of the subject, the tissue specimen being one of hepatocellular carcinoma or cholangiocarcinoma; performing at least one nucleic acid-based and/or proteomic-based assay to quantify transcriptome and/or protein expression of polo-like kinase 1 (PLK1) and epithelial cell transforming 2 (ECT2) in the provided specimen; deriving a ratio of PLK1 expression over ECT2 expression within a defined area on the provided specimen; and generating the predictive survival outcome of the subject according to the derived ratio, the subject being regarded with a first predictive survival outcome when the derived ratio is less than a predetermined value or a second predictive survival outcome when the derived ratio is equal to or greater than the predetermined value. The first predictive survival outcome corresponds to more than 40%-60% of overall survival percentage within a predetermined period in a survival analysis, and the second predictive survival outcome corresponds to 40%-60% or lower of overall survival percentage within the predetermined period in the survival analysis.

[Continued on next page]

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