

ABSTRACT

MUTATIONAL ANALYSIS OF PLASMA DNA FOR CANCER DETECTION

A frequency of somatic mutations in a biological sample (e.g., plasma or serum) of a subject undergoing screening or monitoring for cancer, can be compared with that in the constitutional DNA of the same subject. A parameter can be derived from these frequencies and used to determine a classification of a level of cancer. False positives can be filtered out by requiring any variant locus to have at least a specified number of variant sequence reads (tags), thereby providing a more accurate parameter. The relative frequencies for different variant loci can be analyzed to determine a level of heterogeneity of tumors in a patient.

[Figure 1]