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(54) Title: DETECTION OF VIRAL PRESENCE IN CELLS

(57) **Abstract:** The present invention is related to a method of identifying integrated viral DNA in the genome of at least one mammalian test cell, the method comprising the steps of: (a) determining presence or absence of viral DNA in a DNA sample obtained from the mammalian test cell; and (b) determining the methylation status of at least one CpG site in the viral DNA of the DNA sample obtained from the mammalian test cell, wherein the presence of the viral DNA after step (a) and hypermethylation in step (b) is indicative of the viral DNA being integrated in the mammalian test cell and the virus being inactive respectively; the presence of the viral DNA after step (a) and baseline methylation or hypomethylation in step (b) is indicative of the viral DNA being integrated in the mammalian test cell and the virus being active respectively; and the absence of the viral DNA after step (a) is indicative of the viral DNA not being integrated in the mammalian test cell respectively; and wherein the method is carried out on an array.



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