ABSTRACT

METHODS FOR THE DETECTION OF JC POLYOMA VIRUS

Aspects of the invention relate to methods and compositions for determining whether a subject is at risk for PML, including subjects being treated with immunosuppressants. The invention provides methods of determining whether a subject is susceptible to PML by determining whether the subject harbors a JCV variant with reduced binding for sialic acid relative to a normal JCV. Aspects of the invention also provide combinations of JCV-VP1 sequence variations that are associated with PML and that can be used as a basis of an assay for identifying subjects susceptible to PML, subjects with PML (e.g., early stage PML), or subjects at risk of developing PML in response to an immunosuppressive treatment. The invention also provides assays for identifying candidate therapeutic agents and assessing treatment regimens for PML.

Fig.5A