University of Ferrara

UNIFE PATENTS

Biomedical devices

IMMUNOASSAY FOR THE DETECTION OF ANTIBODIES AGAINST MERKEL CELL POLYOMA VIRUS (MCPYV) USING SYNTHEIC PEPTIDES

Synthetic peptides | Indirect Elisa Test | Merkel cell polyoma virus (MCPyV)



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3 SALUTE E BENESSERE

TECHNOLOGY AREA

Healthcare, biomedical, immunodiagnostics

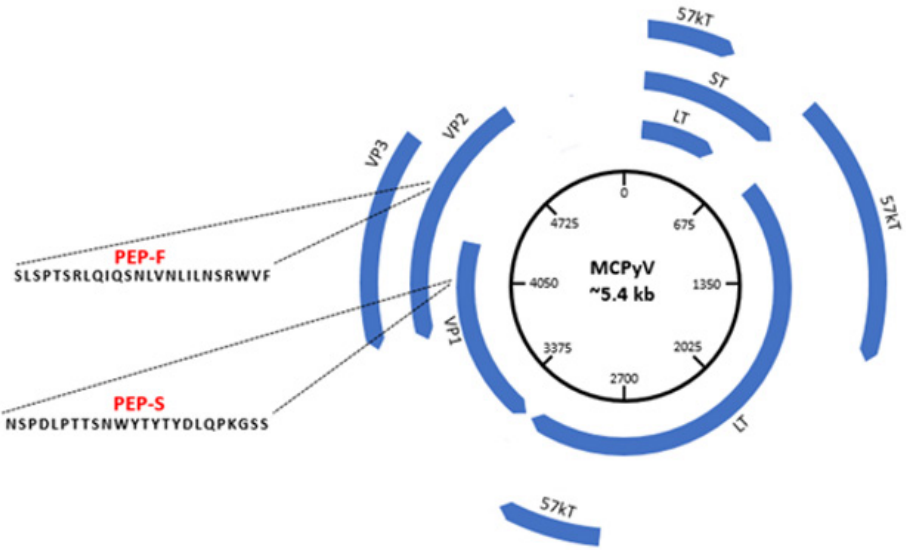
RELEVANT MARKETS

Hospital

PATENT OWNER: University of Ferrara
GEOGRAPHICAL EXTENSION: Italy, PCT
PRIORITY NUMBER: 102020000021235
FILING DATE: 08/09/2020

BRIEF DESCRIPTION OF THE INVENTION

The present invention consists of an assay method for identifying the presence of antibodies against Merkel cell polyoma virus (MCPyV) in a biological fluid sample from a preferably human subject, by using synthetic peptides with the indirect ELISA immunological technique.



CHARACTERISTICS OF THE INVENTION

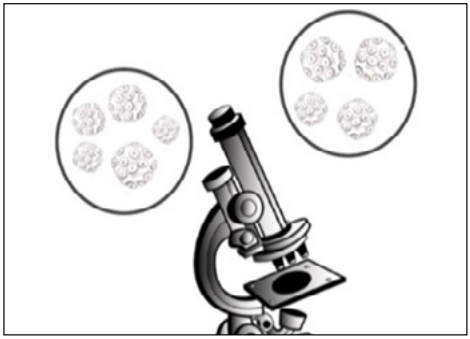
The present invention relates to the identification and use of novel synthetic peptides, corresponding to specific epitopes/antigens of capsid viral proteins 1 and 2 (VP1 and VP2), Merkel cell polyoma virus (HPyV) (MCPyV), to detect antibodies against this virus in serum and other human fluids, employing the indirect ELISA immunological technique. The invention allows, with a specific immunological analytical method using a series of new synthetic peptides, used as viral antigens in indirect ELISA tests, to reveal the presence of antibodies against MCPyV. It will therefore be possible to have standardized, specific, sensitive, rapid and low-cost analysis methods, which allow the presence of antiMCPyV antibodies in positive individuals/patients, such as in the sera of healthy blood, stem cell or organ donor subjects, or in the sera of patients affected by various pathologies, such as autoimmune, neurological diseases, to be identified in an unequivocal and therefore cross-reactive manner renal and neoplastic.

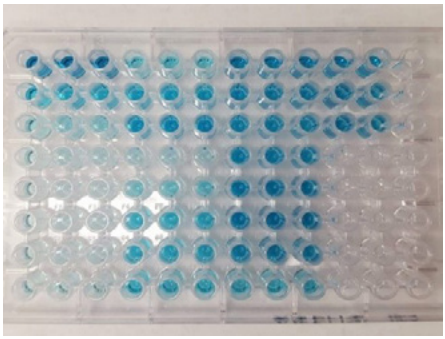
POSSIBLE APPLICATIONS

- Specific immunological analyses to verify previous MCPyV infection;
- Specific immunological analyses to verify the presence of antibodies against MCPyV;
- Monitoring of MCPyV infection in individuals: healthy and patients with autoimmune, neurological, renal and neoplastic diseases.

ADVANTAGES

- Specific and exclusive immunological analysis for MCPyV;
- Standardized, rapid and inexpensive method through the specific KIT;
- Unambiguously identifying the presence of anti-MCPyV antibodies
- Use of specific and unique synthetic peptides of the MCPyV virus to identify antibodies against MCPyV





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