



Identification of the Neutralizing Epitopes of Merkel Cell Polyomavirus Major Capsid Protein within the BC and EF Surface Loops

Submitted by a.bergoend on Mon, 05/11/2015 - 10:58

Titre	Identification of the Neutralizing Epitopes of Merkel Cell Polyomavirus Major Capsid Protein within the BC and EF Surface Loops
Type de publication	Article de revue
Auteur	Fleury, Maxime [1], Nicol, Jr, J.-T. [2], Samimi, M. [3], Arnold, Françoise [4], Cazal, Raphaël [5], Ballaire, R. [6], Mercey, O. [7], Gonnevill, H. [8], Combelas, Nicolas [9], Vautherot, J-F [10], Moreau, T. [11], Lorette, G. [12], Coursaget, Pierre [13], Touzé, Antoine [14]
Editeur	Public Library of Science
Type	Article scientifique dans une revue à comité de lecture
Année	2015
Langue	Anglais
Date	March 26, 2015
Pagination	e0121751
Titre de la revue	PLoS ONE
ISSN	1932-6203
Résumé en anglais	Merkel cell polyomavirus (MCPyV) is the first polyomavirus clearly associated with a human cancer, i.e. the Merkel cell carcinoma (MCC). Polyomaviruses are small naked DNA viruses that induce a robust polyclonal antibody response against the major capsid protein (VP1). However, the polyomavirus VP1 capsid protein epitopes have not been identified to date. The aim of this study was to identify the neutralizing epitopes of the MCPyV capsid. For this goal, four VP1 mutants were generated by insertional mutagenesis in the BC, DE, EF and HI loops between amino acids 88-89, 150-151, 189-190, and 296-297, respectively. The reactivity of these mutants and wild-type VLPs was then investigated with anti-VP1 monoclonal antibodies and anti-MCPyV positive human sera. The findings together suggest that immunodominant conformational neutralizing epitopes are present at the surface of the MCPyV VLPs and are clustered within BC and EF loops.
URL de la notice	http://okina.univ-angers.fr/publications/ua11189 [15]
DOI	10.1371/journal.pone.0121751 [16]

Liens

- [1] <http://okina.univ-angers.fr/maxime.fleury/publications>
- [2] [http://okina.univ-angers.fr/publications?f\[author\]=19871](http://okina.univ-angers.fr/publications?f[author]=19871)
- [3] [http://okina.univ-angers.fr/publications?f\[author\]=19872](http://okina.univ-angers.fr/publications?f[author]=19872)
- [4] [http://okina.univ-angers.fr/publications?f\[author\]=9274](http://okina.univ-angers.fr/publications?f[author]=9274)
- [5] [http://okina.univ-angers.fr/publications?f\[author\]=9273](http://okina.univ-angers.fr/publications?f[author]=9273)

- [6] [http://okina.univ-angers.fr/publications?f\[author\]=19873](http://okina.univ-angers.fr/publications?f[author]=19873)
- [7] [http://okina.univ-angers.fr/publications?f\[author\]=19874](http://okina.univ-angers.fr/publications?f[author]=19874)
- [8] [http://okina.univ-angers.fr/publications?f\[author\]=19875](http://okina.univ-angers.fr/publications?f[author]=19875)
- [9] [http://okina.univ-angers.fr/publications?f\[author\]=9293](http://okina.univ-angers.fr/publications?f[author]=9293)
- [10] [http://okina.univ-angers.fr/publications?f\[author\]=9266](http://okina.univ-angers.fr/publications?f[author]=9266)
- [11] [http://okina.univ-angers.fr/publications?f\[author\]=19876](http://okina.univ-angers.fr/publications?f[author]=19876)
- [12] [http://okina.univ-angers.fr/publications?f\[author\]=19877](http://okina.univ-angers.fr/publications?f[author]=19877)
- [13] [http://okina.univ-angers.fr/publications?f\[author\]=9260](http://okina.univ-angers.fr/publications?f[author]=9260)
- [14] [http://okina.univ-angers.fr/publications?f\[author\]=9256](http://okina.univ-angers.fr/publications?f[author]=9256)
- [15] <http://okina.univ-angers.fr/publications/ua11189>
- [16] <http://dx.doi.org/10.1371/journal.pone.0121751>

Publié sur *Okina* (<http://okina.univ-angers.fr>)