

Title (en)

PRODUCTION AND FUNCTIONALIZATION OF NANOPARTICLES DERIVED FROM PHAGE T5 AND THERAPEUTIC USES

Title (de)

HERSTELLUNG UND FUNKTIONALISIERUNG VON NANOTEILCHEN AUS PHAGE T5 UND THERAPEUTISCHE VERWENDUNGEN

Title (fr)

PRODUCTION ET FONCTIONNALISATION DE NANOPARTICULES DÉRIVÉES DU PHAGE T5 ET UTILISATIONS THÉRAPEUTIQUES

Publication

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Application

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Abstract (en)

[origin: CA3154856A1] The present invention relates to phage T5 capsids that are devoid of genomic DNA from the phage and exposing, on their surface, at least one fusion protein of interest. The invention relates in particular to a phage T5 capsid that is deprived of genomic DNA from the phage and on its surface exposes at least one fusion protein, the fusion protein comprising: - at least one peptide fragment or protein fragment with at least 80% identity with a fragment of a decoration protein pb10; and - at least one functional fragment of an antigen, or at least one functional fragment of a toxin, or at least one receptor fragment, or at least one functional fragment of an addressing or targeting or transportation signal, or at least one functional fragment of an enzyme, or at least one functional fragment of a hormone, or at least one functional fragment of an antibody, or at least one antigen, or at least one toxin, or at least one receptor, or at least one addressing or targeting or transportation signal, or at least one enzyme, or at least one hormone, or at least one antibody, or any combination of these. The present invention also relates to methods for producing such a capsid and to vectors that enable the production thereof. The invention further relates to the fusion proteins of interest that are exposed on the capsid and to the nucleic acids encoding them. The invention also relates to nanoparticles comprising such functionalized capsids, pharmaceutical compositions comprising such nanoparticles and/or such functionalized capsids, and to therapeutic uses thereof, particularly as a medication and/or vaccine.

IPC 8 full level

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