

Title (en)  
TRIPLE HYBRID AMPLICON VECTOR SYSTEMS TO GENERATE RETROVIRAL PACKAGING LINES

Title (de)  
DREIFACH-HYBRID-AMPLIKON-VEKTORSYSTEME FÜR DIE HERSTELLUNG VON RETROVIRUS-VERPACKUNGSZELLINIEN

Title (fr)  
SYSTEME DE VECTEURS D'AMPLICONS HYBRIDES TRIPLES POUR LA GENERATION DE LIGNEES D'ENCAPSIDATION

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Application  
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Abstract (en)  
[origin: WO0065077A1] The present invention relates to a triple hybrid vector amplicon system comprising genetic elements derived from Herpes Simplex Virus (HSV), Epstein-Barr Virus (EBV) or Adeno-Associated Virus (AAV), and a retrovirus. The vector was developed to stably transform cells, both in culture or in vivo, into retrovirus packaging cells in a single step. This step can be accomplished both by transfection using liposomes, electroporation, calcium phosphate, or any other methodology used to transfer naked or complexed DNA into cells or by infection when the vector is packaged as an amplicon vector in HSV virions. In one embodiment, the system takes advantage of the host range and retention properties of HSV/EBV hybrid amplicons to efficiently convert cells to retrovirus vector producer cells after single-step transduction. Retrovirus genes gag-pol and env (GPE) and retroviral vector sequences were modified to minimize sequence overlap and cloned into an HSV/EBV hybrid amplicon. In a second embodiment, retrovirus gag-pol and env genes and a retrovirus vector carrying lacZ, were cloned into HSV/AAV hybrid amplicons. These hybrid amplicon vector systems hold great potential for the generation of new retrovirus packaging lines derived from cells that due to their migratory, tumor or tissue targeting properties, can expand the spatial distribution of gene delivery by retrovirus vectors in vivo.

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Citation (search report)  
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• [YD] SAVARD N ET AL: "Defective herpes simplex virus type 1 vectors harboring gag, pol, and env genes can be used to rescue defective retrovirus vectors", JOURNAL OF VIROLOGY, THE AMERICAN SOCIETY FOR MICROBIOLOGY, US, vol. 71, no. 5, 1 May 1997 (1997-05-01), pages 4111 - 4117, XP002097711, ISSN: 0022-538X  
• [PX] SENA-ESTEVEZ M ET AL: "SINGLE-STEP CONVERSION OF CELLS TO RETROVIRUS VECTOR PRODUCERS WITH HERPES SIMPLEX VIRUS-EPSTEIN-BARR VIRUS HYBRID AMPLICONS", JOURNAL OF VIROLOGY, THE AMERICAN SOCIETY FOR MICROBIOLOGY, US, vol. 73, no. 12, December 1999 (1999-12-01), pages 10426 - 10439, XP000857997, ISSN: 0022-538X  
• See references of WO 0065077A1

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