

Title (en)
HUMAN RETROVIRUS RECEPTOR AND DNA CODING THEREFOR

Publication
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Application
EP 92902921 A 19911213

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US 62795090 A 19901214

Abstract (en)
[origin: WO9210506A1] A human protein molecule termed H13 has strong sequence homology to murine retrovirus receptor proteins and encodes a human retrovirus receptor. DNA encoding the H13 protein, cells transformed and transfected with this DNA and antibodies specific for H13 are disclosed. The H13 protein or its functional derivative can be used for preventing or treating retrovirus infection by administration to a subject of the H13 protein or a functional derivative thereof, or an anti-H13 antibody. Transgenic animals, useful as animal models for diagnosis or therapy of human retrovirus infections, are made by transfecting embryonic cells with the H13-encoding DNA. A chimeric retrovirus receptor protein comprises the H13 sequence, having substituted therein, amino acid residues encoding a murine retroviral receptor. Expression of the chimeric receptor in human cells allows infection or retrovirus-mediated gene transfer with murine retroviruses, which provides an extra measure of safety for in vivo gene therapy. DNA encoding the chimeric retrovirus receptor protein, cells transformed with this DNA, and methods for rendering a cell susceptible to infection by a retrovirus normally incapable of infecting that cell are disclosed.

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Citation (search report)
• [XY] ALBRITTON LM;TSENG L;SCADDEN D;CUNNINGHAM JM;; "A putative murine ecotropic retrovirus receptor gene encodes a multiple membrane-spanning protein and confers susceptibility to virus infection.", CELL, vol. 57, 19 May 1989 (1989-05-19), CAMBRIDGE, NA US, pages 659 - 666
• [XY] CLAYTON, L.K. ET AL.;; "Substitution of murine CD4 residues identifies amino acids critical for HIV-gp120 binding.", NATURE., vol. 335, 22 September 1988 (1988-09-22), LONDON GB, pages 363 - 366
• [Y] JAENISCH, R.;; "Transgenic Animals.", SCIENCE, vol. 240, 1988, LANCASTER, PA, pages 1468 - 1474
• See references of WO 9210506A1

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