Title (en)

INHIBITION OF THE MHC CLASS II ANTIGEN PRESENTATION PATHWAY AND PRESENTATION TO CD4+ CELLS

Title (de)

HEMMUNG DES MHC-KLASSE II ANTIGENPRäSENTATIONSWEGES UND PRäSENTATION GEGENüBER CD4+-ZELLEN

Title (fr)

INHIBITION DU CHEMIN DE PRESENTATION DE L'ANTIGENE DU COMPLEXE MAJEUR D'HISTOCOMPATIBILITE DE CLASSE II ET PRESENTATION AUX CELLULES CD4+

Publication

EP 1157102 A1 20011128 (EN)

Application

EP 00905939 A 20000202

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Abstract (en)

[origin: WO0046361A1] The human cytomegalovirus (HCMV) protein, that was previously shown to block the MHC class I antigen presentation pathway, has been shown herein to block the MHC class II pathway. This is surprising because the class I and class II proteins are not homologous. US2 caused degradation of class II-alpha proteins and also class II-DM-alpha, part of an enzymatic complex required for loading of antigenic peptides. In this way, US2 has a double inhibitory effect on the MHC class II pathway. US2 expression in cells effectively blocked presentation of antigens to CD4+ T lymphocytes. US2, or soluble variants thereof, can be used to reduce inappropriate immune responses directed to vectors, or expressed transgenes. In addition, such molecules can be used to block immunity to transplanted cells or organs or in autoimmune diseases.

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