

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 PRÉSENTATION DE L'ANTIGENE DU COMPLEXE MAJEUR D'HISTOCOMPATIBILITÉ DE CLASSE II ET PRÉSENTATION AUX CELLULES CD4+

Publication
EP 1157102 A1 20011128 (EN)

Application
EP 00905939 A 20000202

Priority
• US 0002740 W 20000202
• US 11828799 P 19990202

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.

IPC 1-7
C12N 15/00; C07H 21/04; C07H 21/02; C12P 21/06; A01N 63/00; A01N 43/04; A61K 45/00

IPC 8 full level
C07K 14/045 (2006.01); **A61K 38/00** (2006.01); **A61K 38/095** (2019.01)

CPC (source: EP)
C07K 14/005 (2013.01); **A61K 38/00** (2013.01); **C12N 2710/16122** (2013.01)

Designated contracting state (EPC)
AT BE CH CY DE DK ES FI FR GB GR IE IT LI LU MC NL PT SE

DOCDB simple family (publication)
WO 0046361 A1 20000810; AU 2752900 A 20000825; CA 2360800 A1 20000810; EP 1157102 A1 20011128; EP 1157102 A4 20040714

DOCDB simple family (application)
US 0002740 W 20000202; AU 2752900 A 20000202; CA 2360800 A 20000202; EP 00905939 A 20000202