

Title (en)
ANTIBODIES AS T CELL RECEPTOR MIMICS, METHODS OF PRODUCTION AND USES THEREOF

Title (de)
ANTIKÖRPER ALS T-ZELL-REZEPTOR-MIMICS, HERSTELLUNGSVERFAHREN UND IHRE VERWENDUNGEN

Title (fr)
ANTICORPS UTILES EN TANT QU'ANALOGUES DE RÉCEPTEUR DES LYMPHOCYTES T, LEURS PROCÉDÉS DE PRODUCTION ET LEURS UTILISATIONS

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Abstract (en)
[origin: WO2007143104A2] The present invention relates to a methodology of producing antibodies that recognize peptides associated with a tumorigenic or disease state, wherein the peptides are displayed in the context of HLA molecules. These antibodies will mimic the specificity of a T cell receptor (TCR) but will have higher binding affinity such that the molecules may be used as therapeutic, diagnostic and research reagents. The method of producing a T-cell receptor mimic of the present invention includes identifying a peptide of interest, wherein the peptide of interest is capable of being presented by an MHC molecule. Then, an immunogen comprising at least one peptide/MHC complex is formed, wherein the peptide of the peptide/MHC complex is the peptide of interest. An effective amount of the immunogen is then administered to a host for eliciting an immune response, and serum collected from the host is assayed to determine if desired antibodies that recognize a three-dimensional presentation of the peptide in the binding groove of the MHC molecule are being produced. The desired antibodies can differentiate the peptide/MHC complex from the MHC molecule alone, the peptide alone, and a complex of MHC and irrelevant peptide. Finally, the desired antibodies are isolated.

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Citation (search report)
• [X] WO 03070752 A2 20030828 - DYAX CORP [US], et al
• [Y] WO 2005116072 A2 20051208 - WEIDANZ JON A [US], et al
• [YD] US 2005003483 A1 20050106 - HILDEBRAND WILLIAM H [US], et al
• [YD] US 2002197672 A1 20021226 - HILDEBRAND WILLIAM H [US], et al
• [Y] WO 2004011483 A2 20040205 - LUDWIG INST CANCER RES [US], et al
• [XP] WO 2007030451 A2 20070315 - RECEPTOR LOGIC LTD [US], et al
• [YD] DANGLES V ET AL: "Tumor-associated antigen human chorionic gonadotropin beta contains numerous antigenic determinants recognized by in vitro-induced CD8+ and CD4+ T lymphocytes", CANCER IMMUNOLOGY AND IMMUNOTHERAPY, SPRINGER-VERLAG, BERLIN, DE LNKD-DOI:10.1007/S00262-001-0248-0, vol. 50, no. 12, 1 February 2002 (2002-02-01), pages 673 - 681, XP002236556, ISSN: 0340-7004
• [YD] JOOEUN BAE ET AL: "Identification of CD19 and CD20 Peptides for Induction of Antigen-Specific CTLs against B-Cell Malignancies", CLINICAL CANCER RESEARCH, THE AMERICAN ASSOCIATION FOR CANCER RESEARCH, US, vol. 11, 15 February 2005 (2005-02-15), pages 1629 - 1638, XP007912765, ISSN: 1078-0432
• [YD] JAGER E ET AL: "Simultaneous humoral and cellular immune response against cancer-testis antigen NY-ESO-1: Definition of human histocompatibility leukocyte antigen (HLA)-A2-binding peptide epitopes", THE JOURNAL OF EXPERIMENTAL MEDICINE, ROCKEFELLER UNIVERSITY PRESS, UNITED STATES LNKD- DOI:10.1084/JEM.187.2.265, vol. 187, no. 2, 19 January 1998 (1998-01-19), pages 265 - 270, XP002477113, ISSN: 0022-1007
• [XP] WITTMAN VAUGHAN P ET AL: "Antibody targeting to a class I MHC-peptide epitope promotes tumor cell death", JOURNAL OF IMMUNOLOGY, AMERICAN ASSOCIATION OF IMMUNOLOGISTS, US, vol. 177, no. 6, 1 September 2006 (2006-09-01), pages 4187 - 4195, XP002514758, ISSN: 0022-1767
• See references of WO 2007143104A2

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