

Technology Offer

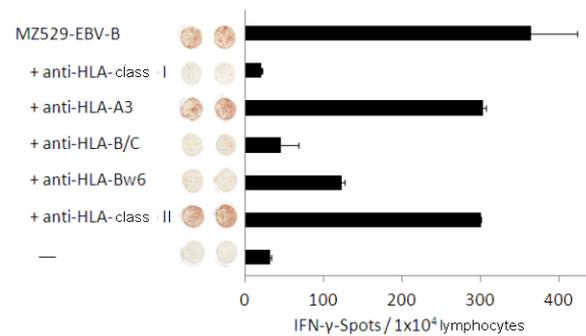
New Minor-HLA for the Diagnostics, Prophylaxis and Therapy of AML Patients

Description

T lymphocytes present HLA molecules on their surface. The allogeneic transplantations of blood cells could lead either to a required graft- versus- leukaemia/ tumor reaction (GvL/T) or could result in an undesired graft-versus-Host-Disease (GvHD). If there is a complete HLA-match, these effects could result from minor histocompatibility antigens. The present invention deals with an unknown mHAg. Studies have shown that T cells from one donor, which were co-incubated with leukaemia cells (homozygous for HLA- molecules), could induce specific T cell responses. Accordingly these results refer to an immunogenic mHAg. A minor- mismatch could lead to a GvH- Disease or to positive GvL reactions. In the first case a tissue typing from donor and recipient could minimize the risk of a GvHD. In the second case the preferable GvL-/ GvT-effects could be increased through a transfer of antigen specific T cells or T cell receptors by inoculation.

Application

Hence, the shown mHAG is suitable for transplant medicine and for immunotherapy. Especially diagnostics could benefit from an enhanced donor selection because of a reduced insecurity about the complications in spite of a HLA match. Furthermore the donors and patients could inoculate with antigens in the form of *in vitro* transcribed mRNA, recombinant pro-



HLA-restriction of the miniMLLC 2E8

MZ529-EBV-B cells (5×10^4 cells / TE) in the presence of HLA specific anti-bodies in a concentration of a total blockade of the control T lymphocytes with corresponding HLA restriction were co incubate with the miniMLLC 2E8 (1×10^4 cells / TE) in double values in a 20h-IFN- γ -ELISpot-Assay.

teins or peptides to strengthen the specific immune response. In the case of an outbreak of a mHAg mediated GvHD, peptide analogues can be used, which specifically can block and inhibit T cells. To follow the course of therapy, antigen specific T cells in the blood of the patients can be proven.

The Status of Development

- cell experiments

The Patent Status

European patent application is pending; international applications are possible.

Rights available

Research collaborations; simple and exclusive licenses for production and distribution

Additional Information

IMG Innovations-Management GmbH
c/o Universitätsmedizin Mainz
Dr. Marcus Kaltwasser
Obere Zahlbacher Straße 63
55131 Mainz
Tel: +49 (0) 61 31/17-97 70
Fax: +49 (0) 61 31/17-99 54
E-Mail: kaltwasser@img-rlp.de
Internet: www.img-rlp.de

Our reference: HMZ087