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(71) Applicant *(for all designated States except US)*: **F. HOFFMANN-LA ROCHE AG** [CH/CH]; Grenzacher Strasse 124, CH-4070 Basel (CH).

(72) Inventor; and
(75) Inventor/Applicant *(for US only)*: **KNOETGEN, Hendrik** [DE/DE]; Agathe-Fleissner-Weg 16, 82377 Penzberg (DE).

(74) Agents: **JENNI, Wolfgang** et al.; Roche Diagnostics GmbH, Patent Department (LPP.....6164), P.O.Box 11 52, 82372 Penzberg (DE).

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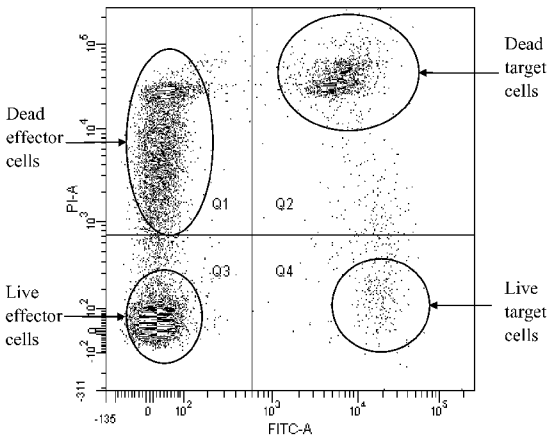
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(54) **Title**: REMOVAL OF TARGET CELLS BY CIRCULATING VIRUS-SPECIFIC CYTOTOXIC T-CELLS USING MHC CLASS I COMPRISING COMPLEXES

Fig. 5b



(57) **Abstract**: Herein is reported a complex comprising as first part an antibody derived part that specifically binds to a target antigen, and as second part a virus-derived peptide linked to a MHC class I protein complex. With the complex as reported herein existing virus-specific circulating cytotoxic T-cells (T-memory-cells or T-effector-cells) of an individual can be directed to cells expressing the target antigen, to which the antibody derived part of the covalent complex specifically binds to, by dressing these cells with a MHC class I complexes mimicking an acute viral infection. Thus, one aspect as reported herein is a complex, characterized in that it comprises one fusion polypeptide that comprises in N- to C-terminal direction either (i) a β2-microglobulin, and (ii) the extracellular domains α1, α2, and α3 of a class I MHC molecule with a relative frequency of less than 1 %, or (i) a virus- derived peptide, (ii) a β2-microglobulin, and (iii) the extracellular domains α1, α2, and α3 of a class I MHC molecule with a relative frequency of 1 % or more, and two polypeptide chains, which are linked by one or more disulfide bonds, wherein the first disulfide-linked polypeptide chain comprises in N- to C-terminal direction (i) an immunoglobulin light or heavy chain variable domain, (ii) an immunoglobulin light or heavy chain constant domain, and (iii) an antibody heavy chain hinge region polypeptide, and the second disulfide-linked

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polypeptide chain comprises an antibody heavy chain hinge region polypeptide, wherein the fusion polypeptide is either covalently bound either to the C-terminus or the N-terminus of one of the disulfide-linked polypeptide chains, or covalently bound to the N-terminus of an antibody variable domain that is the complementary heavy or light chain variable domain to that comprised in the first disulfide-linked polypeptide chain.