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(54) Title: ARMED NK CELLS FOR UNIVERSAL CELL THERAPY

(57) Abstract: The present invention relates to the field of therapeutic treatment, particularly of cell therapy based on CD 16+ cells and NK (Natural Killer) cells. In particular, the invention relates to a pharmaceutical composition comprising a CD 16+ cell, a NK cell or a NK cell precursor, in combination with a recombinant polypeptide comprising a modified Fc region, in particular a modified CH2 domain. More particularly, the invention relates to a composition comprising a CD 16+ cell and/or a NK cell, in combination with a recombinant polypeptide capable of binding to the FcγRIII (CD 16) surface protein, wherein the recombinant polypeptide is non-covalently bound to the FcγRIII (CD 16) surface protein expressed by the CD 16+ cell, and wherein said recombinant polypeptide comprises: (i) a modified CH2 domain of a wild-type human IgG1, bound, optionally through a linker, to (ii) a ligand binding domain, wherein the ligand binding domain comprises a sequence capable of binding to a target ligand; wherein the modified CH2 domain is characterized by comprising mutations S239D and I332E with respect to the CH2 domain of a wild-type human IgG1, and wherein said CH2 domain of a wild-type human IgG1 is represented by SEQ ID NO 1, and comprises sequence positions 231-340, according to the EU numbering.

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