Autologous Anti-CD19 CAR-T Cells TBI-1501

National Cancer Institute

Source

National Cancer Institute. Autologous Anti-CD19 CAR-T Cells TBI-1501. NCI Thesaurus. Code C150377.

Autologous T-lymphocytes that have been transduced, via a proprietary technology involving a recombinant human fibronectin fragment to enhance transduction efficiency, with a retroviral vector to express a chimeric antigen receptor (CAR) consisting of a single chain variable fragment (scFv) of anti-CD19 coupled to co-stimulatory molecules, with potential immunostimulating and antineoplastic activities. Upon transfusion, anti-CD19-CAR-expressing autologous T-lymphocytes TBI-1501 target and bind to CD19-expressing neoplastic B-cells. This results in a cytotoxic T-lymphocyte (CTL) response against CD19-expressing tumor cells, the release of cytotoxic molecules and the induction of tumor cell lysis. CD19, cluster of differentiation 19, is a B-cell-specific cell surface antigen overexpressed in B-cell lineage tumors. Incorporation of the costimulatory signaling domains increase proliferation and activation of T-cells.