Open Peer Review on Qeios

Anti-CD38/BCMA CAR T-lymphocytes

National Cancer Institute

Source

National Cancer Institute. Anti-CD38/BCMA CAR T-lymphocytes. NCI Thesaurus. Code C158087.

A preparation of T-lymphocytes that have been genetically modified to express a dual-targeted chimeric antigen receptor (CAR) recognizing the tumor-associated antigens (TAAs), cluster of differentiation 38 (CD38) and B-cell maturation antigen (BCMA; tumor necrosis factor receptor superfamily member 17; TNFRSF17), with potential immunostimulating and antineoplastic activities. Upon intravenous administration, the anti-CD38/BCMA CAR T-cells are directed to and induce selective toxicity in both CD38- and BCMA-expressing cells. CD38, a type II transmembrane glycoprotein, is present on various immune cells and hematologic malignancies, and its expression has been correlated with poor prognosis. BCMA is found on the surfaces of plasma cells and is and overexpressed on malignant plasma cells.