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Autologous Anti-BCMA-CAR-expressing CD4+/CD8+ T-lymphocytes FCARH143

National Cancer Institute

Source

National Cancer Institute. *Autologous Anti-BCMA-CAR-expressing CD4+/CD8+ T-lymphocytes FCARH143*. NCI Thesaurus. Code C142807.

A preparation of ex vivo expanded autologous CD8+ and CD4+ T-cells that have been genetically modified to express a chimeric antigen receptor (CAR) specific for human B-cell maturation antigen (BCMA; tumor necrosis factor receptor superfamily member 17; TNFRSF17), with potential immunostimulating and antineoplastic activities. Upon administration, autologous anti-BCMA-CAR-expressing CD4+/CD8+ T-lymphocytes FCARH143 specifically recognize and induce selective toxicity in BCMA-expressing tumor cells. BCMA, a tumor specific antigen and a receptor for both a proliferation-inducing ligand (APRIL) and B-cell activating factor (BAFF), is a member of the tumor necrosis factor (TNF) receptor superfamily (TNFRSF) and plays a key role in plasma cell survival. BCMA is found on the surfaces of plasma cells and overexpressed on malignant plasma cells.