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Autologous Anti-BCMA-CAR-4-1BB-CD3zeta-expressing Memory T-lymphocytes bb21217

National Cancer Institute

Source

National Cancer Institute. *Autologous Anti-BCMA-CAR-4-1BB-CD3zeta-expressing Memory T-lymphocytes bb21217*. NCI Thesaurus. Code C140310.

A preparation of autologous memory T-lymphocytes transduced, ex vivo, with a lentiviral vector expressing a chimeric antigen receptor (CAR) containing an anti-B-cell maturation antigen (BCMA) single chain variable fragment (scFv) fused to the signaling domain of 4-1BB (CD137) and a CD3-zeta T-cell activation domain, with potential immunostimulating and antineoplastic activities. Upon intravenous administration back into the patient, the autologous anti-BCMA-CAR-4-1BB-CD3zeta-expressing memory T-lymphocytes bb21217 are directed to, 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 receptor superfamily (TNFRSF) and plays a key role in plasma survival. BCMA is overexpressed on malignant plasma cells.