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Anti-MUC1 CAR-transduced Autologous T-lymphocytes

National Cancer Institute

Source

National Cancer Institute. *Anti-MUC1 CAR-transduced Autologous T-lymphocytes*. NCI Thesaurus. Code C124646.

Autologous T-lymphocytes transduced with a retroviral vector expressing a chimeric antigen receptor (CAR) consisting of a single chain variable fragment (scFv) against the human tumor-associated epithelial antigen mucin 1 (MUC1), with potential immunomodulating and antineoplastic activities. Autologous PBLs from a patient with MUC1-positive cancer are transduced with a retroviral vector that encodes the CAR gene specific for MUC1. After expansion in culture and reintroduction into the patient, anti-MUC1 CAR-transduced autologous T-lymphocytes target and induce selective toxicity in MUC1-expressing tumor cells. MUC-1 is a human, hypoglycosylated tumor-associated antigen (TAA) overexpressed by epithelial cancer cells.