Autologous CT-RCC-1 HERV-E-TCR-transduced-HLA-A11-restricted CD8+/CD34t+ T-cells

National Cancer Institute

Source

National Cancer Institute. Autologous CT-RCC-1 HERV-E-TCR-transduced-HLA-A11-restricted CD8+/CD34t+ T-cells. NCI Thesaurus. Code C157344.

A preparation of autologous T-lymphocytes transduced with a retroviral vector encoding a T-cell receptor (TCR) sequence specific for CT-RCC-1, a tumor-associated antigen (TAA) and HLA-A11-restricted peptide encoded by human endogenous retrovirus (HERV) type E as well as a truncated CD34 chain (CD34t), with potential antineoplastic activity. Upon isolation, transduction, expansion ex vivo and re-introduction into the patient, the autologous CT-RCC-1 HERV-E-TCR-transduced-HLA-A11-restricted CD8+/CD34t+ T-cells bind to and induce selective toxicity in tumor cells expressing both the HLA-A11 allele and the CT-RCC-1 HERV-E antigen. The CD34t protein allows the transduced cells to be identified with an anti-CD34 antibody, and facilitates monitoring of the genetically modified T-cells following adoptive transfer. CT-RCC-1 HERV-E is a TAA found in a high percentage of clear cell renal cell carcinoma (ccRCC) cells.