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Autologous T-lymphocytes-expressing NY-ESO-1-C259-specific Enhanced T-cell Receptors

National Cancer Institute

Source

National Cancer Institute. *Autologous T-lymphocytes-expressing NY-ESO-1-C259-specific Enhanced T-cell Receptors*. NCI Thesaurus. Code C124655.

Human autologous lymphocytes transduced with a retroviral vector encoding a T-cell receptor (TCR) specific for the cancer/testis antigen NY-ESO-1, with potential antineoplastic activity. Upon isolation, transduction, expansion ex vivo, and reintroduction into the patient, the autologous T-lymphocytes expressing NY-ESO-1-C259-specific enhanced T-cell receptors bind to NY-ESO-1-overexpressing tumor cells. This may result in the specific cytotoxic T-lymphocyte (CTL) killing of NY-ESO-1-positive cancer cells. NY-ESO-1, a tumor-associated antigen (TAA), is found in normal testis and on the surface of various tumor cell types; the TCR is specific for SLLMWITQC, an NY-ESO-1-derived peptide, in a complex with human leukocyte antigen (HLA) A2 peptide.