Anti-NY-ESO1 TCR-transduced Autologous CD62L+-derived T-Lymphocytes

National Cancer Institute

Source

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Human autologous CD62L-positive T-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. Following leukapheresis, isolation of lymphocytes, expansion ex vivo, transduction, and reintroduction into the patient, the anti-NY-ESO1 TCR-transduced autologous CD62L+-derived T-Lymphocytes bind to NY-ESO-1-overexpressing tumor cells. This may result in cytotoxic T-lymphocyte (CTL)-mediated elimination 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. CD62L, also called L-selectin, is a lymphoid homing receptor and differentiation marker and is expressed on a subset of CD8-positive T-lymphocytes; it is involved in the migration of T-lymphocytes to lymph nodes and may improve the efficacy for ex vivo-expanded T-cells following adoptive cell therapy.