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MART-1 Reactive CD8+ T-lymphocytes

National Cancer Institute

Source

National Cancer Institute. *MART-1 Reactive CD8+ T-lymphocytes*. NCI Thesaurus. Code C111683.

Human CD8-positive T-lymphocytes that are engineered to recognize melanoma tumor associated antigen MART-1 (Melanoma Antigen Recognized by T cells, also called Melan-A) in a human leukocyte antigen (HLA)-A2-restricted manner, with potential antineoplastic activity. Human peripheral blood lymphocytes (PBLs) are isolated from a melanoma patient, exposed to the MART-1:27-35(27L) peptide and MART-1 specific T-lymphocytes are isolated and expanded. Upon infusion, these lymphocytes recognize and exert a cytotoxic T-cell-mediated immune response against MART-1-expressing melanoma cells. The synthetic MART-1:27-35 HLA-A2-restricted peptide has an amino acid substitution, leucine to alanine at position 27, to increase its immunogenicity.