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Autologous CEA-specific Cytotoxic T-lymphocytes

National Cancer Institute

Source

National Cancer Institute. *Autologous CEA-specific Cytotoxic T-lymphocytes*. NCI Thesaurus. Code C123822.

Autologous cytotoxic T-lymphocytes (CTLs) specifically reactive to the tumor-associated antigen (TAA) human carcinoembryonic antigen (CEA), with potential antineoplastic activity. Dendritic cells (DCs) isolated from the patient's blood are infected with recombinant adeno-associated virus (AAV) expressing the CEA gene. Exposure of T-lymphocytes to DCs creates CEA-specific CTLs which are expanded. Upon reintroduction of these CTLs into the patient, these cells recognize and kill CEA-expressing tumor cells. CEA, a tumor-associated antigen and a member of the CEA family of proteins, plays a key role in cell migration, cell invasion, and cell adhesion and is overexpressed by a variety of cancer types.