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Dendritic Cell-targeting Lentiviral Vector ID-LV305

National Cancer Institute

Source

National Cancer Institute. *Dendritic Cell-targeting Lentiviral Vector ID-LV305*. NCI Thesaurus. Code C115976.

An engineered lentiviral vector targeting dendritic cells (DCs) and containing nucleic acids encoding for the human tumor-associated cancer-testis antigen NY-ESO-1, with potential immunostimulatory and antineoplastic activities. Upon intradermal administration, the DC-targeting lentiviral vector ID-LV305 targets and binds to dermal DCs via the DC-specific intercellular adhesion molecule-3-grabbing non-integrin (DC-SIGN) receptor. Upon internalization of the vector, the NY-ESO-1 protein is expressed, stimulates DC maturation and activates the immune system to mount a cytotoxic T-lymphocyte (CTL) response against NY-ESO-1-expressing cells, which may result in tumor cell lysis. NY-ESO-1 is expressed in normal testes and on the surfaces of various tumor cells, and plays a key role in tumor cell proliferation and survival.