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HLA-A*2402-Restricted URLC10-CDCA1-KIF20A Multipeptide Vaccine

National Cancer Institute

Source

National Cancer Institute. *HLA-A*2402-Restricted URLC10-CDCA1-KIF20A Multipeptide Vaccine*. NCI Thesaurus. Code C90566.

A cancer vaccine containing three HLA-A*2402-restricted peptide epitopes derived from cancer-testis antigens with potential immunostimulatory and antitumor activities. The peptide epitopes are derived from up-regulated lung cancer 10 (URLC10); cell division cycle associated 1 (CDCA1); and kinesin-like family member 20A (KIF20A). Upon administration, HLA-A*2402-restricted URLC10-CDCA1-KIF20A multipeptide vaccine may stimulate a cytotoxic T lymphocyte (CTL) response against URL10-, CDCA1-, and KIF20A-expressing tumor cells, resulting in tumor cell lysis and decreased tumor cell proliferation. HLA-A*2402 is an MHC class I molecule that presents antigenic peptides to CD8⁺ T cells; epitope design restricted to epitopes that bind most efficiently to HLA-A*2402 may improve antigenic peptide immunogenicity.