HLA-A*2404-Restricted RNF43-TOMM34-VEGFR1-VEGFR2 Multipeptide Vaccine

National Cancer Institute

Source

*National Cancer Institute. HLA-A*2404-Restricted RNF43-TOMM34-VEGFR1-VEGFR2 Multipeptide Vaccine. NCI Thesaurus. Code C77867.*

A cancer vaccine containing four HLA-A*2402-restricted peptide epitopes with potential immunostimulatory and antitumor activities. Peptide epitopes in this vaccine are derived from ring finger protein 43 (RNF43); translocase of outer mitochondrial membrane 34 (TOMM34); and vascular endothelial growth factor receptors (VEGFR) 1 and 2. Upon administration, HLA-A*2404-restricted RNF43-TOMM34-VEGFR1-VEGFR2 multipeptide vaccine may stimulate a cytotoxic T lymphocyte (CTL) response against tumor cells expressing RNF43, TOMM34, and VEGFR 1 and 2 peptides, resulting in tumor cell lysis and decreased tumor growth. 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.