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# HPV16 E7-specific HLA-A\*02:01-restricted IgG1-Fc Fusion Protein CUE-101

National Cancer Institute

## Source

National Cancer Institute. *HPV16 E7-specific HLA-A\*02:01-restricted IgG1-Fc Fusion Protein CUE-101*. NCI Thesaurus. Code C162459.

A fusion protein composed of a human leukocyte antigen (HLA) complex, HLA-A\*0201, with a peptide epitope derived from the human papillomavirus type 16 (HPV16) E7 protein (amino acid residues 11-20), a reduced affinity human interleukin-2 (IL-2) variant, and an effector attenuated human immunoglobulin G1 (IgG1) Fc domain, with potential antineoplastic and immunostimulatory activities. Upon administration, CUE-101 targets and selectively binds to E7-specific CD8-positive T-cells present in patients with HPV16-driven malignancies. This may induce the secretion of inflammatory cytokines such as interferon gamma (IFN gamma) and promote the activation and expansion of tumor-specific CD8-positive cells, which may lead to T-cell-mediated elimination of tumor cells expressing the HPV16 E7 antigen. The HPV16 E7 oncoprotein is a cell surface glycoprotein and tumor-associated antigen (TAA) that is overexpressed in various HPV-associated cancers.