E5 Protein, Human papillomavirus type 16 (Cell-Free, His, GST)

Cat. No.:	HY-P702266
Synonyms:	Probable protein E5
Species:	Virus
Source:	E. coli Cell-free
Accession:	P06927 (M1-T83)
Gene ID:	1489077
Molecular Weight:	36.4 kDa

PROPERTIES

AA Sequence	M T N L D T A S T T L L A C F L L C F C V L L C V C L L I R P L L L S V S T Y T S L I I L V L L L W I T A A S A F R C F I V Y I I F V Y I P L F L I H T H A R F L I T
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.22 μm filtered solution of Tris/PBS-based buffer, 6% Trehalose, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O. For long term storage it is recommended to add 5-50% of glycerol (final concentration). Our default final concentration of glycerol is 50%. Customers could use it as reference.
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	The E5 protein functions to maintain host cells in a proliferation-competent state upon differentiation by enhancing host epidermal growth factor receptor (EGFR) activation and inhibiting EGFR internalization following stimulation by EGF. It induces a redistribution of host caveolin-1 and glycosphingolipid (ganglioside GM1) components of lipid rafts to the plasma membrane. Given that GM1s inhibit cytotoxic T-lymphocytes, block immune synapse formation, and enhance proliferative signaling by the EGFR, E5 potentially facilitates immune evasion and cell proliferation via a shared mechanism. E5 also modulates endosomal pH by interacting with the vacuolar H+-ATPase, a proton pump responsible for acidifying cellular organelles. Additionally, E5 disrupts the transport of major histocompatibility class I to the cell surface, retaining the complex in the Golgi apparatus. Existing as a homooligomer, E5 interacts with host BCAP31, correlating with the ability of

HPV-positive differentiated cells to sustain proliferation. Furthermore, E5 engages with host ATP6V0C and HLA class I heavy chains A1, A2, A3, and B8, inhibiting the host immune response by sequestering MHC class I peptides to the host Golgi apparatus.

Tel: 609-228-6898 Fax: 609-228-5909 E-mail: tech@MedChemExpress.com
Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA