

HLA-A*0201 HPV16 E7 complex Protein, Human (HEK293, His)

Cat. No.:	HY-P70393
Synonyms:	rHuHLA-A*0201 HPV16 E7 complex Protein, His; NA
Species:	Human
Source:	HEK293
Accession:	P61769 (I21-M119)&P01892 (G25-I308)&YMLDLQPET
Gene ID:	567&3105
Molecular Weight:	55-60 kDa

PROPERTIES

AA Sequence	<pre> YMLDLQPET& IQRTPKIQVY SRHPAENGKS NFLNCYVSGF HPSDIEVDLL KNGERIEKVE HSDLSFSKDW SFYLLYTFE TPT EKDEYAC RVNHVTL SQP KIVKWDRDM& GSHSMRYFFT SVSRPGRGEP RFI AVGYVDD TQFVRFDS DA ASQRMEPRAP WIEQEGPEYW DQETRN VKAQ SQTDRVDLGT LRGYYNQSEA GSHTIQIMYG CDVGS DGRFL RGYRQDAYDG KDYIALNEDL RSWTAADMAA QITKRKWEAA HEAEQLRAYL DGTCVEWLR YLENGKETLQ RTDPPKTHMT HHPISDHEAT LRCWALGFYP AEITLTWQRD GEDQTQDTEL VETRPAGDGT FQKWVAVVVP SGEEQRYTCH VQHEGLPKPL TLRWELSSQP TIPI </pre>
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 µm filtered solution of 20 mM PB, 500 mM NaCl, 0.06% Tween 80, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 µg/mL in ddH ₂ O.
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	B2M, or Beta-2-microglobulin, functions as a critical component of the class I major histocompatibility complex (MHC), playing a central role in presenting peptide antigens to the immune system. Notably, exogenously applied M. tuberculosis EsxA or EsxA-EsxB binds B2M and reduces its export to the cell surface, potentially leading to defects in class I antigen
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presentation. B2M exists as a heterodimer, composed of an alpha chain and a beta chain, with the latter serving as the beta-chain of major histocompatibility complex class I molecules. Polymers of B2M have been observed in tissues of patients on long-term hemodialysis. B2M, in its isolated form, interacts with *M. tuberculosis* EsxA and an EsxA-EsxB complex, forming a tripartite complex detectable in the host endoplasmic reticulum. The stability of the B2M-EsxA complex extends across a broad pH range and in the presence of high salt concentrations. Additionally, B2M forms heterotrimers with HLA-E, HLA-G, and HLA-F, along with a self- or foreign peptide, contributing to the diverse functions of the major histocompatibility complex. Furthermore, B2M engages in a heterotrimeric complex with MR1, playing a role in antigen presentation associated with metabolite antigens.

Caution: Product has not been fully validated for medical applications. For research use only.

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