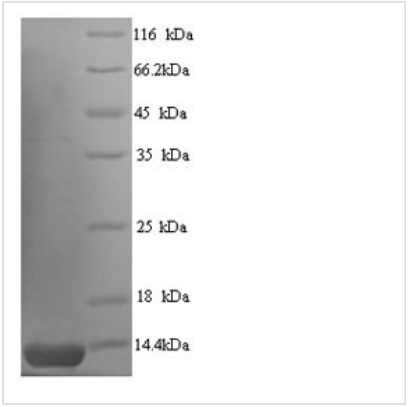
Recombinant Human herpesvirus 1 ICP47 protein (US12)

Product Code	CSB-YP360979HWY
Relevance	Plays a role in the inhibition of host immune response. Binds specifically to transporters associated with antigen processing (TAP), thereby blocking peptide-binding and translocation by TAP as well as subsequent loading of peptides onto MHC class I molecules. pty MHC I molecules are retained in the endoplasmic reticulum and ultimately directed to proteasomal degradation. In consequence, infected cells are masked for immune recognition by cytotoxic T-lymphocytes.
Abbreviation	Recombinant Human herpesvirus 1 US12 protein
Storage	The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.
Uniprot No.	P03170
Alias	Immediate-early protein IE12Immediate-early-5Infected cell protein 47US12 proteinVmw12
Product Type	Recombinant Protein
Immunogen Species	Human herpesvirus 1 (strain 17) (HHV-1) (Human herpes simplex virus 1)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	MSWALEMADTFLDTMRVGPRTYADVRDEINKRGREDREAARTAVHDPERPLLRSPGLLPEIAPNASLGVAHRRTGGTVTDSPRNPVTR
Research Area	Others
Source	Yeast
Target Names	US12
Protein Names	Recommended name: ICP47 protein Alternative name(s): Immediate-early protein IE12 Immediate-early-5 Infected cell protein 47 US12 protein Vmw12
Expression Region	1-88aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 6xHis-tagged
Mol. Weight	11.8kDa
Protein Length	Full Length
Image	



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

Description

The fusion tag N-terminal 6xHis tag gene was added to the gene sequence corresponding to the yeast of the HHV-1 US12 protein to form the recombinant DNA. The recombinant DNA was cloned into the expression vector and then transfected into the yeast cells for expression. Following purification, the product is the recombinant HHV-1 US12 protein carrying N-terminal 6xHis tag. The SDS-PAGE assessed the purity of this recombinant US12 protein up to 90%. It had an apparent molecular weight of approximately 14 kDa.

US12 is gene providing instructions for making a protein named human herpesvirus 1 ICP47 protein (abbreviated US12) and belongs to Herpesviridae US12 family. US12, a HSV immediate early protein, is small protein produced by the herpes simplex virus, is considered as an important factor in the evasion of cellular immune responses in HSV-infected cells. It is expressed very early after infection and can inhibit CD8+ T cell recognition of infected cells. Recent studies have established clearly that ICP47 can bind with high affinity to human TAP and inhibit the transport of peptides into the endoplasmic reticulum.

Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL.We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself.
Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.