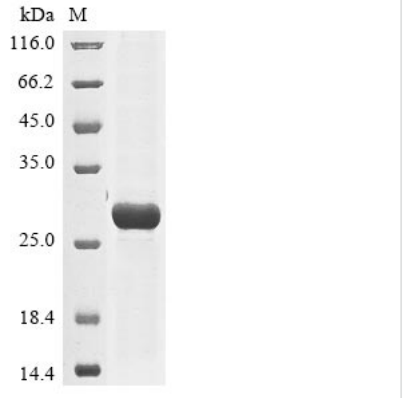
Recombinant Human herpesvirus 6A Envelope glycoprotein B (gB), partial

Product Code	CSB-EP338963HJZ
Abbreviation	Recombinant Human herpesvirus 6A gB protein, partial
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.	P28864
Form	Liquid or Lyophilized powder
Storage Buffer	If the delivery form is liquid, the default storage buffer is Tris/PBS-based buffer, 5%-50% glycerol. If the delivery form is lyophilized powder, the buffer before lyophilization is Tris/PBS-based buffer, 6% Trehalose.
Product Type	Recombinant Protein
Immunogen Species	Human herpesvirus 6A (strain Uganda-1102) (HHV-6 variant A) (Human B lymphotropic virus)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	DPDHYIRAGYNHKYPFRICSIAKGTDLMRFDRDISCSPYKSNAKMSEGFFIIYKT NIETYTFPVRTYKKELTFQSSYRDVGVVYFLDRTVMGLAMPVYEANLVNSHAQ CYSAVAMKRPDGTVFSAFHEDNNKNNTLNLFPLNFKSITNKRFITTKEPYFARG PLWL
Research Area	Microbiology
Source	E.coli
Target Names	gB
Expression Region	23-188aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.
Tag Info	N-terminal 10xHis-tagged and C-terminal Myc-tagged
Mol. Weight	26.8 kDa
Protein Length	Partial
Image	



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

Description

Recombinant Human herpesvirus 6A Envelope glycoprotein B (gB) gets produced in an E. coli expression system and spans amino acids 23-188. The partial protein carries an N-terminal 10xHis-tag plus a C-terminal Myc-tag, which helps with purification and detection. SDS-PAGE analysis confirms purity levels above 85%, suggesting reliable performance in experimental work.

Envelope glycoprotein B (gB) from Human herpesvirus 6A appears to play a crucial role in how the virus infects host cells. It mainly contributes to viral entry by promoting membrane fusion. This protein sits within the viral envelope and represents a key target for researchers trying to understand viral pathogenesis and immune response interactions. That makes it potentially valuable for virology studies.

Potential Applications

Note: The applications listed below are based on what we know about this protein's biological functions, published research, and experience from experts in the field. However, we haven't fully tested all of these applications ourselves yet. We'd recommend running some preliminary tests first to make sure they work for your specific research goals.

1. Antibody Development and Characterization

This recombinant HHV-6A gB fragment (aa 23-188) could work as an immunogen or screening antigen when developing monoclonal or polyclonal antibodies against HHV-6A envelope glycoprotein B. The dual His and Myc tags allow for purification and detection across different immunoassay formats. Scientists might use this protein to create antibodies for studying HHV-6A infection mechanisms or viral entry processes. It could also help develop research tools for detecting HHV-6A in lab settings. The partial gB sequence may harbor important epitopes that are relevant for antibody binding studies.

2. Protein-Protein Interaction Studies

Both the N-terminal His tag and C-terminal Myc tag make this protein suitable for pull-down assays aimed at identifying cellular proteins that interact with HHV-6A glycoprotein B. Scientists can attach the protein to nickel-affinity resins or anti-Myc antibody-coated surfaces to capture potential binding partners from

cell lysates. These interaction studies might offer insights into HHV-6A entry mechanisms and help identify host cell receptors. The expressed region (aa 23-188) could contain functionally important domains involved in protein-protein interactions.

3. ELISA-Based Binding Assays

The dual-tagged recombinant gB protein appears useful in enzyme-linked immunosorbent assays for studying binding interactions with potential cellular receptors or other viral proteins. His and Myc tags make protein capture and detection straightforward in plate-based assay formats. Scientists can explore binding kinetics, specificity, and competitive binding using this protein as either a capture antigen or detection reagent. Such assays may contribute to understanding HHV-6A tropism and entry mechanisms at the molecular level.

4. Structural and Biochemical Characterization

This recombinant gB fragment works well for biophysical studies aimed at characterizing the structural properties of the HHV-6A envelope glycoprotein B N-terminal region. High purity (>85%) makes it suitable for techniques like circular dichroism spectroscopy, dynamic light scattering, or analytical ultracentrifugation to assess protein folding and oligomerization states. The defined expression region (aa 23-188) allows focused analysis of this specific domain's biochemical properties. These studies could provide fundamental insights into gB structure-function relationships.

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.