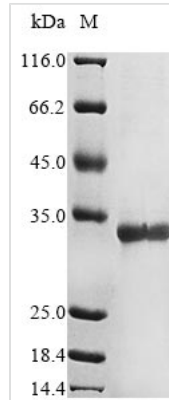




Recombinant Human herpesvirus 6B mRNA export factor ICP27 homolog (KA3L), partial

Product Code	CSB-EP345610HKA
Abbreviation	Recombinant Human herpesvirus 6B KA3L 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.	P52539
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 6B (strain Z29) (HHV-6 variant B) (Human B lymphotropic virus)
Purity	Greater than 85% as determined by SDS-PAGE.
Sequence	CLLTNDILETDLLLRYPQCLDSL TREENQQLMGDRIFSLTNSPCLAFTVATVEE ACSYFKFHDHLNLPVNPQDLFMYTITVMKFEFFNKLNMAKLTCTVFNDNGHGD EYRKLRLQCGKPVLDREMPNSEFEVQQQTPDSFRHPIQQAMSIVVTFARILRQI KEHIIRTKKPQFIRDFDTERVAERYECGLISRLIGKQFSNHKCDDVSCQNRIERI MAPWKPSLFFCTYF
Research Area	others
Source	E.coli
Target Names	KA3L
Expression Region	135-364aa
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	34.6 kDa
Protein Length	Partial
Image	



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

Description

Recombinant Human herpesvirus 6B mRNA export factor ICP27 homolog (KA3L) is produced using an *E. coli* expression system. This partial protein covers amino acids 135 to 364 and comes with an N-terminal 10xHis tag and a C-terminal Myc tag. SDS-PAGE analysis shows the protein reaches greater than 85% purity, which appears to be sufficient for most research applications.

Human herpesvirus 6B's KA3L protein seems to play a crucial role in how the virus manages mRNA export—a process that's essential for viral replication and gene expression. Studying this protein may be important in virology research since it could provide insights into viral infection mechanisms and potentially inform therapeutic strategies against herpesvirus-related diseases.

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. Protein-Protein Interaction Studies

This recombinant KA3L fragment works well in pull-down assays to identify cellular proteins that interact with the HHV-6B mRNA export factor. The N-terminal His-tag makes it easy to immobilize on nickel-affinity resins. Meanwhile, the C-terminal Myc-tag allows for detection and confirmation of protein binding in Western blot analysis. Studies like these could help clarify the molecular mechanisms by which HHV-6B manipulates host cell mRNA export machinery during infection.

2. Antibody Development and Validation

The dual-tagged recombinant protein serves as a solid antigen for generating specific antibodies against HHV-6B KA3L. The expressed region (135-364aa) represents a substantial portion of the protein that likely contains multiple antigenic epitopes. Researchers can validate generated antibodies using the Myc-tag for initial screening, then test for specificity against the His-tagged protein in various immunoassays.



3. Biochemical Characterization and Structural Studies

This purified protein fragment can be used for biophysical analyses. These might include circular dichroism spectroscopy, dynamic light scattering, and analytical ultracentrifugation to characterize folding properties and oligomerization state. The high purity (>85%) and dual tags make protein handling and concentration determination more straightforward for detailed biochemical studies of this viral mRNA export factor domain.

4. Comparative Functional Analysis with Related Viral Proteins

The recombinant KA3L proves useful in comparative studies with homologous mRNA export factors from other herpesviruses, particularly the well-characterized HSV-1 ICP27 protein. Such comparative analyses could involve binding assays, competition experiments, and functional complementation studies. These approaches may help researchers understand evolutionary relationships and functional conservation among herpesvirus mRNA export factors.

5. Development of Antiviral Screening Assays

This recombinant protein can serve as a target in high-throughput screening assays to identify small molecules that disrupt its function or interactions. The dual-tag system makes it possible to develop ELISA-based or fluorescence polarization assays for compound screening. This could potentially contribute to discovering antiviral agents that target HHV-6B mRNA export mechanisms.

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.