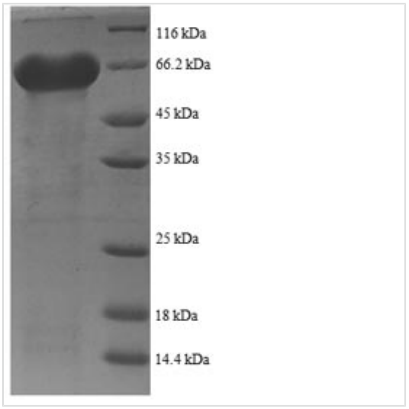
Recombinant Human immunodeficiency virus type 1 group M subtype B Envelope glycoprotein gp160 (env), partial

Product Code	CSB-EP361302HKP
Relevance	Envelope glycoprotein gp160: Oligomerizes in the host endoplasmic reticulum into predominantly trimers. In a second time, gp160 transits in the host Golgi, where glycosylation is completed. The precursor is then proteolytically cleaved in the trans-Golgi and thereby activated by cellular furin or furin-like proteases to produce gp120 and gp41.
Abbreviation	Recombinant Human immunodeficiency virus type 1 group M subtype B env 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.	P04578
Alias	Env polyprotein
Product Type	Recombinant Protein
Immunogen Species	Human immunodeficiency virus type 1 group M subtype B (isolate HXB2) (HIV-1)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	KLWVTVYYGVPVWKEATTTLFCASDAKAYDTEVHNVWATHACVPTDPNPQEV VLVNVTENFNMWKNDMVEQMHEDIISLWDQSLKPCVKLTPLCVSLKCTDLKN DTNTNSSSGRMIMEKGEIKNCSFNISTSIRGKVQKEYAFFYKLDIIPIDNDTTSYK LTSCNTSVITQACPKVSFEPIPIHYCAPAGFAILKCNNKTFNGTGPCTNVSTVQC THGIRPVVSTQLLLNGSLAEEEVVIRSVNFTDNAKTIIVQLNTSVEINCTRPNNN TRKRIRIQRGPGRAFVTIGKIGNMRQAHCNISRAKWNNTLKQIASKLREQFGNN KTIIFKQSSGGDPEIVTHSFNCGGEFFYCNSTQLFNSTWFNSTWSTEGSNNTE GSDTITLPCRIKQIINMWQKVGKAMYAPPISGQIRCSSNITGLLLTRDGGNSNNE SEIFRPGGGDMRDNWRSELYKYKVVKIEPLGVAPTKAKRRVVQREKR
Research Area	Others
Source	E.coli
Target Names	env
Protein Names	Env polyprotein
Expression Region	33-511aa
Notes	Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.

Tag Info	N-terminal 6xHis-SUMO-tagged
Mol. Weight	69.7 kDa
Protein Length	Partial

Image



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

Description

Amino acids 33-511 form the expressed segment for recombinant HIV-1 env. The calculated molecular weight for this env protein is 69.7 kDa. This env protein is produced using e.coli expression system. The N-terminal 6xHis-SUMO tag was smoothly integrated into the coding gene of env, which enables a simple process of detecting and purifying the env recombinant protein in the following steps.

The human immunodeficiency virus type 1 (HIV-1) group M subtype B Envelope glycoprotein gp160, commonly referred to as env, is a key structural protein of the HIV-1 virus. Env is initially synthesized as a precursor glycoprotein, gp160, which is subsequently cleaved into two subunits, gp120 and gp41, during viral maturation. Gp120 is responsible for binding to the CD4 receptor on the surface of host immune cells, initiating the viral entry process. Gp41 facilitates the fusion of the viral and host cell membranes, allowing the virus to enter the host cell. The env gene is highly variable, contributing to the extensive diversity of HIV-1, and its genetic variation poses challenges for vaccine development. Understanding the structure and function of the HIV-1 Env glycoprotein is crucial for developing strategies to combat HIV/AIDS, including the design of antiretroviral drugs and vaccines aimed at preventing viral entry and infection.

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

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