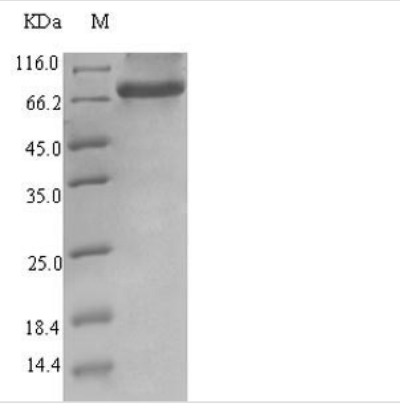
Recombinant Human Endogenous retrovirus group K member 6 Env polyprotein (ERVK-6), partial

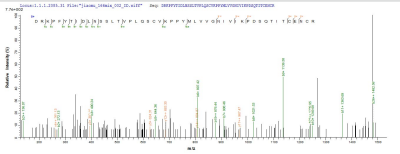
Product Code	CSB-EP724336HU
Relevance	Retroviral envelope proteins mediate receptor recognition and membrane fusion during early infection. Endogenous envelope proteins may have kept, lost or modified their original function during evolution. This endogenous envelope protein has lost its original fusogenic properties. SU mediates receptor recognition. TM anchors the envelope heterodimer to the viral membrane through one transmembrane domain. The other hydrophobic domain, called fusion peptide, mediates fusion of the viral membrane with the target cell membrane
Abbreviation	Recombinant Human ERVK-6 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.	Q69384
Alias	EnvK2 protein Envelope polyprotein HERV-K(C7) envelope protein HERV-K(HML-2.HOM) envelope protein HERV-K108 envelope protein HERV-K_7p22.1 provirus ancestral Env polyprotein Cleaved into the following 2 chains: Surface protein Short name: SU Transmembrane protein Short name: TM
Product Type	Recombinant Protein
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	LPMPAGAAAANYTYWAYVPFPPLIRAVTWMDNPTEVYVNDSVWVPGPIDDRC PAKPEEEGMMINISIGYHYPPICLGRAPGCLMPAVQNWLVEVPTVSPICRFTYH MVSGMSLRPRVNYLQDFSYQRSLKFRPKGKPCPKEIPKESKNTEVLVWEECV ANSAVILQNNEFGTIIDWAPRGQFYHNCSGQTQSCPSAQVSPAVDSDLTESLD KHKHKKLQSFYPWEWGEKGISTPRPKIVSPVSGPEHPELWRLTVASHHIRIWS GNQTLETRDRKPFYTIDLNSSLTVPLQSCVKPPYMLVVGNIVIKPDSQTITCENC RLLTCIDSTFNWQHRILLVRAREGVWIPVSMDRPWEASPSVHILTEVLKGVLNR SKRFIFTLIAVIMGLIAVTATAAVAGVALHSSVQSVNFVNDWQKNSTRLWNSQS SIDQKLANQINDLRQTVIWMGDRLMSLEHRFQLQCDWNTSDFCITPQIYNESE HHWDMVRRHLQGREDNLTLDISKLKEQIFEASKAHLNLVPGTEAIAGVADGLA NLNPVTWVKT
Research Area	Others
Source	E.coli
Target Names	ERVK-6
Expression Region	90-632aa

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	77.5kDa
Protein Length	Extracellular Domain

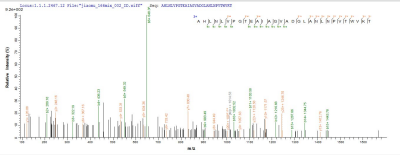
Image



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



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP724336HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) ERVK-6.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP724336HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) ERVK-6.

Description

Like all recombinant proteins, this Recombinant Human ERVK-6 protein was encoded by recombinant DNA. The recombinant DNA was introduced to a plasmid in which the gene of ERVK-6 was cloned downstream of a promoter region. When the plasmid was introduced to the cells of E.coli, the E.coli's own protein synthesis pathways would then result in the expression of the ERVK-6 protein. And the next step was protein purification. The purity of this recombinant protein is 90%+ determined by SDS-PAGE.

ERVK-6 is known as HERV-K, which has been considered as a supergroup of viruses. One of the subtypes, termed HML-2, seems to be the most active and hence, it is the best studied. Aberrant expression of HML-2 in adult tissues has been associated with certain types of cancer and with neurodegenerative diseases. Interestingly, HML-2 can also form viral-like particles, which have been detected in various cells, particularly teratocarcinomas and melanomas. . Although these viral-like particles are considered noninfectious, two independent research groups have demonstrated that the consensus sequence of HML-2 provirus can produce infectious particles. The involvement of HML-2 in pathological conditions, especially in malignancies, has been the focus of

	numerous publications. However, expression profiles of healthy tissues such as brain, heart, peripheral blood mononuclear cells (PBMCs), lung, liver, and breast indicate that several HML-2 proviruses are transcriptionally active, although the magnitude of expression in most healthy tissues is low. Since increased activation of HML-2 has been associated with several pathologies, it raises the question of whether these genes can be silenced to affect the outcome of these diseases.
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.