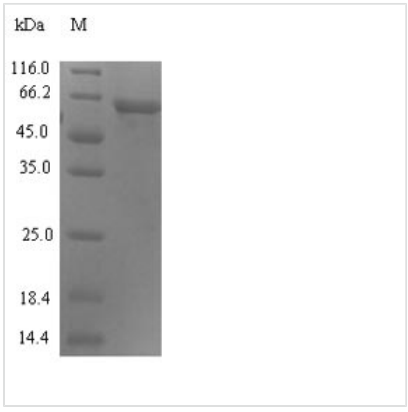
Recombinant Human Syncytin-1 (ERVW-1), partial

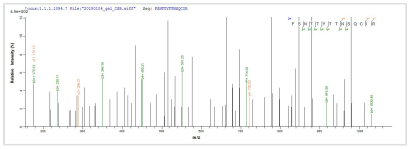
Product Code	CSB-EP891578HU
Relevance	This endogenous retroviral envelope protein has retained its original fusogenic properties and participates in trophoblast fusion and the formation of a syncytium during placenta morphogenesis. May induce fusion through binding of SLC1A4 and SLC1A5 (PubMed:10708449, PubMed:12050356, PubMed:23492904).Endogenous envelope proteins may have kept, lost or modified their original function during evolution. Retroviral envelope proteins mediate receptor recognition and membrane fusion during early infection. The surface protein (SU) mediates receptor recognition, while the transmembrane protein (TM) acts as a class I viral fusion protein. The protein may have at least 3 conformational states: pre-fusion native state, pre-hairpin intermediate state, and post-fusion hairpin state. During viral and target cell membrane fusion, the coiled coil regions (heptad repeats) assume a trimer-of-hairpins structure, positioning the fusion peptide in close proximity to the C-terminal region of the ectodomain. The formation of this structure appears to drive apposition and subsequent fusion of membranes.
Abbreviation	Recombinant Human ERVW-1 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.	Q9UQF0
Product Type	Recombinant Proteins
Immunogen Species	Homo sapiens (Human)
Purity	Greater than 90% as determined by SDS-PAGE.
Sequence	APPPCRCMTSSSPYQEFLWRMQRPGNIDAPSYRSLSKGTPTFTAHTHMPRN CYHSATLCMHANTHYWTGKMINPSCPGGLGVTVCWTYFTQTGMSDGGGVQ DQAREKHVKEVISQLTRVHGTSSPYKGLDLSKLHETLRTHTRLVSLFNTTLTGL HEVSAQNPTNCWICLPLNFRPYVSIPVPEQWNNFSTEINTTSVLVGPLVSNLEI THTSNLTCVKFSNTTYTTNSQCIRWVTPPTQIVCLPSGIFFVCGTSAYRCLNGS SESMCFLSFLVPPMTIYTEQDLYSYVISKPRNKRVPILPFVIGAGVLGALGTGIG GITTSTQFYYKLSQELNGDMERVADSLVTLQDQLNSLAAVVLQNRRALDLLTA ERGGTCLFLGEECCYYVNQSGIVTEKVKEIRDRIQRRAEELRNTGPWGLLSQ
Research Area	Cell Biology
Source	E.coli
Target Names	ERVW-1
Expression Region	21-443aa
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	63.0kDa
Protein Length	Partial

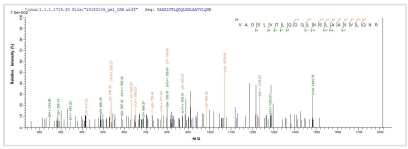
Image



(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-EP891578HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) ERVW-1.



Based on the SEQUEST from database of E.coli host and target protein, the LC-MS/MS Analysis result of CSB-EP891578HU could indicate that this peptide derived from E.coli-expressed Homo sapiens (Human) ERVW-1.

Description

Recombinant Human Syncytin-1(ERVW-1) is a partial length protein expressed with N-terminal 6xHis-SUMO-tagged in the E.coli. Its expression region corresponds to 21-443aa of the human ERVW-1. Its purity was determined by SDS-PAGE and reached up to 90% and presented a molecular mass band of 63.0 kDa on the gel. This recombinant ERVW-1 protein may be used to synthesize antibodies against ERVW-1.
ERVW-1, an endogenous retroviral envelope protein, has retained its original fusogenic properties and participates in trophoblast fusion and the formation of a syncytium during placenta morphogenesis, and is involved in fusion of the cytotrophoblast cells to form the syncytial layer of the placenta. It may induce fusion through binding of SLC1A4 and SLC1A5. Diseases associated with ERVW-1 include Multiple Sclerosis and Placental Choriocarcinoma.

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.