ARG59368
anti-ERVW1 / Syncytin 1 antibody

Package: 100 µl
Store at: -20°C

Summary

Product Description	Rabbit Polyclonal antibody recognizes ERVW1 / Syncytin 1
Tested Reactivity	Hu
Tested Application	IHC-P, WB
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Target Name	ERVW1 / Syncytin 1
Species	Human
Immunogen	KLH-conjugated synthetic peptide corresponding to aa. 400-429 of Human ERVW1 / Syncytin 1.
Conjugation	Un-conjugated
Alternate Names	HERV-W envelope protein; HERV7Q; Env-W; gp24; Syncytin-1; HERVWENV; SU; ENVW; Envelope polyprotein gPr73; HERV-W_7q21.2 provirus ancestral Env polyprotein; TM; Syncytin; Endogenous retrovirus group W member 1; ENV; HERVW; HERV-W-ENV; HERV-7q; gp50; HERV-7q Envelope protein; ERVWE1; Enverin; HERV

Application Instructions

Application table

Application	Dilution
IHC-P	1:100
WB	1:1000

Application Note	* The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.
Positive Control	Human brain

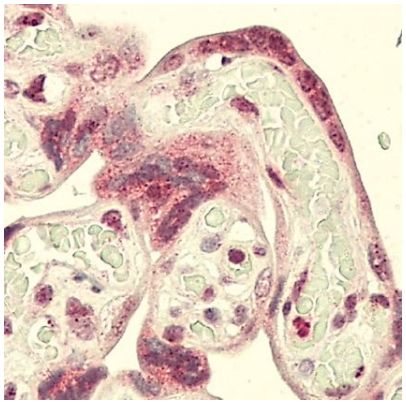
Properties

Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS and 0.09% (W/V) Sodium azide.
Preservative	0.09% (W/V) Sodium azide.
Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C or below. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

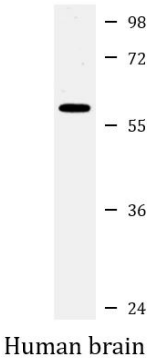
Gene Symbol	ERVW-1
Gene Full Name	endogenous retrovirus group W, member 1
Background	Many different human endogenous retrovirus (HERV) families are expressed in normal placental tissue at high levels, suggesting that HERVs are functionally important in reproduction. This gene is part of an HERV provirus on chromosome 7 that has inactivating mutations in the gag and pol genes. This gene is the envelope glycoprotein gene which appears to have been selectively preserved. The gene's protein product is expressed in the placental syncytiotrophoblast and is involved in fusion of the cytotrophoblast cells to form the syncytial layer of the placenta. The protein has the characteristics of a typical retroviral envelope protein, including a furin cleavage site that separates the surface (SU) and transmembrane (TM) proteins which form a heterodimer. Alternatively spliced transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Mar 2010]
Function	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. 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. [UniProt]
Calculated Mw	60 kDa
PTM	Specific enzymatic cleavages in vivo yield mature proteins. Envelope glycoproteins are synthesized as a inactive precursor that is heavily N-glycosylated and processed likely by furin in the Golgi to yield the mature SU and TM proteins. The cleavage site between SU and TM requires the minimal sequence [KR]-X-[KR]-R. The intracytoplasmic tail cleavage by the viral protease that is required for the fusiogenic activity of some retroviruses envelope proteins seems to have been lost during evolution. The CXXC motif is highly conserved across a broad range of retroviral envelope proteins. It is thought to participate in the formation of a labile disulfide bond possibly with the CX6CC motif present in the transmembrane protein. Isomerization of the intersubunit disulfide bond to an SU intrachain disulfide bond is thought to occur upon receptor recognition in order to allow membrane fusion. [UniProt]
Cellular Localization	Surface protein: Cell membrane; Peripheral membrane protein. Note=The surface protein is not anchored to the membrane, but localizes to the extracellular surface through its binding to TM. Transmembrane protein: Cell membrane; Single-pass type I membrane protein. Syncytin-1: Virion. [UniProt]

Images



ARG59368 anti-ERVW1 / Syncytin 1 antibody IHC-P image

Immunohistochemistry: Formalin-fixed and paraffin-embedded Human placenta stained with ARG59368 anti-ERVW1 / Syncytin 1 antibody.



ARG59368 anti-ERVW1 / Syncytin 1 antibody WB image

Western blot: 35 µg of Human brain lysate stained with ARG59368 anti-ERVW1 / Syncytin 1 antibody at 1:1000 dilution.