Homo sapiens endogenous retrovirus group W member 1, envelope (ERVW-1), transcript variant 2, mRNA

NCBI Reference Sequence: NM_001130925.2

FASTA Graphics

Go to:

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LOCUS       NM_001130925          2794 bp    mRNA    linear   PRI 20-OCT-2022
DEFINITION  Homo sapiens endogenous retrovirus group W member 1, envelope
            (ERVW-1), transcript variant 2, mRNA.
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VERSION     NM_001130925.2
KEYWORDS    RefSeq; MANE Select.
SOURCE      Homo sapiens (human)
  ORGANISM  Homo sapiens
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            Mammalia; Eutheria; Euarchontoglires; Primates; Haplorrhini;
            Catarrhini; Hominidae; Homo.
REFERENCE   1  (bases 1 to 2794)
  AUTHORS   C West R, Ezashi T, B Schoolcraft W and Yuan Y.
  TITLE     Beyond fusion: A novel role for ERVW-1 in trophoblast
proliferation
            and type I interferon receptor expression
  JOURNAL   Placenta 126, 150-159 (2022)
   PUBMED   35816776
  REMARK    GeneRIF: Beyond fusion: A novel role for ERVW-1 in trophoblast
            proliferation and type I interferon receptor expression.
REFERENCE   2  (bases 1 to 2794)
  AUTHORS   Roberts RM, Ezashi T, Schulz LC, Sugimoto J, Schust DJ, Khan T
and
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  TITLE     Syncytins expressed in human placental trophoblast
  JOURNAL   Placenta 113, 8-14 (2021)
   PUBMED   33504453
  REMARK    Review article
REFERENCE   3  (bases 1 to 2794)
  AUTHORS   Bergallo M, Canosa S, Galliano I, Dapra V, Montanari P, Sestero
M,
            Gennarelli G, Benedetto C, Revelli A and Tovo PA.
  TITLE     Impaired transcription of human endogenous retroviruses in the
            sperm with exception of syncytin 1: short communication
  JOURNAL   Mol Biol Rep 48 (7), 5803-5808 (2021)
   PUBMED   34302264
  REMARK    GeneRIF: Impaired transcription of human endogenous retroviruses
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            the sperm with exception of syncytin 1: short communication.
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REFERENCE 4 (bases 1 to 2794)
AUTHORS Balestrieri E, Minutolo A, Petrone V, Fanelli M, Iannetta M, Malagnino V, Zordan M, Vitale P, Charvet B, Horvat B, Bernardini S, Garaci E, di Francesco P, Sinibaldi Vallebona P, Sarmati L, Grelli S, Andreoni M, Perron H and Matteucci C.
TITLE Evidence of the pathogenic HERV-W envelope expression in T lymphocytes in association with the respiratory outcome of COVID-19 patients
JOURNAL EBioMedicine 66, 103341 (2021)
PUBMED 33867312
REMARK GeneRIF: Evidence of the pathogenic HERV-W envelope expression in T lymphocytes in association with the respiratory outcome of COVID-19 patients.
REFERENCE 5 (bases 1 to 2794)
AUTHORS Wang X, Wu X, Huang J, Li H, Yan Q and Zhu F.
TITLE Human endogenous retrovirus W family envelope protein (HERV-W env) facilitates the production of TNF-alpha and IL-10 by inhibiting MyD88s in glial cells
JOURNAL Arch Virol 166 (4), 1035-1045 (2021)
PUBMED 33438105
REMARK GeneRIF: Human endogenous retrovirus W family envelope protein (HERV-W env) facilitates the production of TNF-alpha and IL-10 by inhibiting MyD88s in glial cells.
REFERENCE 6 (bases 1 to 2794)
AUTHORS Blond JL, Lavillette D, Cheynet V, Bouton O, Oriol G, Chapel-Fernandes S, Mandrand B, Mallet F and Cosset FL.
TITLE An envelope glycoprotein of the human endogenous retrovirus HERV-W is expressed in the human placenta and fuses cells expressing the type D mammalian retrovirus receptor
JOURNAL J Virol 74 (7), 3321-3329 (2000)
PUBMED 10708449
REMARK GeneRIF: Env HERV-W glycoprotein mediates cell-cell fusion upon interaction with the type D mammalian retrovirus receptor. Env protein was detected in the placental syncytiotrophoblast, suggesting a physiological role during pregnancy and placenta formation.
REFERENCE 7 (bases 1 to 2794)
AUTHORS Mi S, Lee X, Li X, Veldman GM, Finnerty H, Racie L, LaVallie E, Tang XY, Edouard P, Howes S, Keith JC Jr and McCoy JM.

TITLE Syncytin is a captive retroviral envelope protein involved in human placental morphogenesis
JOURNAL Nature 403 (6771), 785-789 (2000)
PUBMED 10693809

REFERENCE 8 (bases 1 to 2794)
AUTHORS Voisset C, Blancher A, Perron H, Mandrand B, Mallet F and Paranhos-Baccala G.
TITLE Phylogeny of a novel family of human endogenous retrovirus sequences, HERV-W, in humans and other primates
JOURNAL AIDS Res Hum Retroviruses 15 (17), 1529-1533 (1999)
PUBMED 10580403

REFERENCE 9 (bases 1 to 2794)
AUTHORS Blond JL, Beseme F, Duret L, Bouton O, Bedin F, Perron H, Mandrand B and Mallet F.
TITLE Molecular characterization and placental expression of HERV-W, a new human endogenous retrovirus family
JOURNAL J Virol 73 (2), 1175-1185 (1999)
PUBMED 9882319

REFERENCE 10 (bases 1 to 2794)
AUTHORS Alliel PM, Perin JP, Pierig R, Nussbaum JL, Menard A and Rieger F.
TITLE Endogenous retroviruses and multiple sclerosis. II. HERV-7q
JOURNAL C R Acad Sci III 321 (10), 857-863 (1998)
PUBMED 9835022

COMMENT REVIEWED REFSEQ: This record has been curated by NCBI staff. The reference sequence was derived from AC007566.2, AF072506.2 and BC137381.1.
On Nov 22, 2018 this sequence version replaced NM_001130925.1.

Summary: 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].

Transcript Variant: This variant (2) has an alternate 5' UTR, as compared to variant 1. Variants 1 and 2 encode the same protein.

Publication Note: This RefSeq record includes a subset of the publications that are available for this gene. Please see the Gene record to access additional publications.

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RNAseq introns :: single sample supports all introns SAMEA2162568 [ECO:0000348]
##Evidence-Data-END##

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MANE Ensembl match :: ENST00000603053.2/ ENSP00000474984.1
RefSeq Select criteria :: based on expression, longest protein
##RefSeq-Attributes-END##
COMPLETENESS: full length.

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