

syncytin-B (I-15): sc-167587

BACKGROUND

Syncytin, also known as ERVWE1 (endogenous retroviral family W, env(C7), member 1), is a human endogenous retrovirus family W (HERV-W) envelope protein expressed in placenta that is involved in the fusion of cytotrophoblast cells to form the multi-nucleated syncytial layer of the placenta. In both humans and mice, placental cytotrophoblast morphogenesis, more commonly known as trophoblast maturation, is crucial for proper embryonic and placental development. D930020E02Rik (RIKEN cDNA D930020E02 gene), also known as Synb or syncytin-B, is a 618 amino acid protein that is the homolog of human syncytin-2. A single-pass membrane protein that is highly expressed in placenta, syncytin-2 functions as a retroviral envelope protein that mediates receptor recognition and membrane fusion during early infection. Syncytin-2 belongs to the gamma type-C retroviral envelope protein family and the HERV class-I FRD subfamily.

REFERENCES

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- Blaise, S., et al. 2005. Functional characterization of two newly identified human endogenous retrovirus coding envelope genes. *Retrovirology* 2: 19.
- Malassiné, A., et al. 2007. Expression of the fusogenic HERV-FRD Env glycoprotein (syncytin 2) in human placenta is restricted to villous cytotrophoblastic cells. *Placenta* 28: 185-191.
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- Chen, C.P., et al. 2008. Functional characterization of the human placental fusogenic membrane protein syncytin 2. *Biol. Reprod.* 79: 815-823.
- Esnault, C., et al. 2008. A placenta-specific receptor for the fusogenic, endogenous retrovirus-derived, human syncytin-2. *Proc. Natl. Acad. Sci. USA* 105: 17532-17537.

CHROMOSOMAL LOCATION

Genetic locus: Synb (mouse) mapping to 14 D2.

SOURCE

syncytin-B (I-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of syncytin-B of mouse origin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-167587 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

syncytin-B (I-15) is recommended for detection of syncytin-B of mouse origin and syncytin-2 of rat origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with syncytin-A.

Suitable for use as control antibody for syncytin-B siRNA (m): sc-142860, syncytin-B shRNA Plasmid (m): sc-142860-SH and syncytin-B shRNA (m) Lentiviral Particles: sc-142860-V.

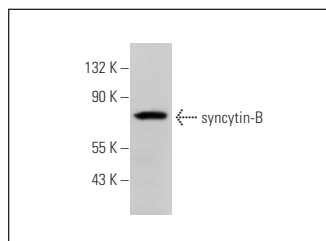
Molecular Weight of syncytin-B: 70 kDa.

Positive Controls: F9 cell lysate: sc-2245, AMJ2-C8 whole cell lysate: sc-364366 or AT3B-1 whole cell lysate: sc-364372.

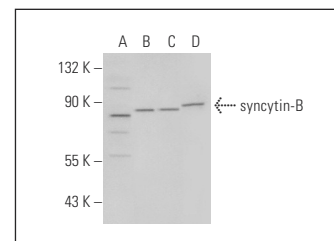
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



syncytin-B (I-15): sc-167587. Western blot analysis of syncytin-B expression in HT-1080 whole cell lysate.



syncytin-B (I-15): sc-167587. Western blot analysis of syncytin-B expression in NCI-H460 (A), F9 (B), AMJ2-C8 (C) and AT3B-1 (D) whole cell lysates.

RESEARCH USE

For research use only, not for use in diagnostic procedures.