

syncytin-B (F-15): sc-167586

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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3. Renard, M., et al. 2005. Crystal structure of a pivotal domain of human syncytin-2, a 40 million years old endogenous retrovirus fusogenic envelope gene captured by primates. *J. Mol. Biol.* 352: 1029-1034.
4. Blaise, S., et al. 2005. Functional characterization of two newly identified Human Endogenous Retrovirus coding envelope genes. *Retrovirology* 2: 19.
5. 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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7. Chen, C.P., et al. 2008. Functional characterization of the human placental fusogenic membrane protein syncytin 2. *Biol. Reprod.* 79: 815-823.
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CHROMOSOMAL LOCATION

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

SOURCE

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

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-167586 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

syncytin-B (F-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), 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.

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) 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.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.