SANTA CRUZ BIOTECHNOLOGY, INC.

Jagged2 (R-19): sc-8158

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The LIN-12/Notch family of transmembrane receptors is believed to play a central role in development by regulating cell fate decisions. Ligands for Notch include Jagged1, Jagged2 and Delta. Jagged is a membrane protein and can activate Notch and prevent myoblast differentiation by inhibiting the expression of muscle regulatory and structural genes. It is involved in mammalian cardiovascular development and in cell-fate decisions during hematopoiesis. Jagged is expressed in adult and fetal tissues. Expression of Jagged is up-regulated in cervical squamous cell carcinoma. Familial Tetralogy of Fallot, the most common form of complex congenital heart disease, is caused by a mutation in the JAG1 gene.

REFERENCES

1. Laborda, J., et al. 1993. dlk, a putative mammalian homeotic gene differentially expressed in small cell lung carcinomas and neuroendocrine tumor cell line. J. Biol. Chem. 268: 3817-3820.
2. Simpson, P. 1994. The Notch receptors. Austin, TX: R.G. Landes Company.
3. Lindsell, C.E., et al. 1995. Jagged: a mammalian ligand that activates Notch1. Cell 80: 909-917.
4. Valsecchi, C., et al. 1997. Jagged2: a putative Notch ligand expressed in the apical ectodermal ridge and in sites of epithelial-mesenchymal interactions. Mech. Dev. 69: 203-207.
5. Crosnier, C., et al. 2001. Fifteen novel mutations in the Jagged1 gene of patients with Alagille syndrome. Hum. Mutat. 17: 72-73.

CHROMOSOMAL LOCATION

Genetic locus: Jag2 (mouse) mapping to 12 F1.

SOURCE

Jagged2 (R-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping at the C-terminus of Jagged2 of rat 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-8158 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Jagged2 (R-19) is recommended for detection of Jagged2 of mouse and 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).

Suitable for use as control antibody for Jagged2 siRNA (m): sc-39673, Jagged2 shRNA Plasmid (m): sc-39673-SH and Jagged2 shRNA (m) Lentiviral Particles: sc-39673-V.

Molecular Weight of Jagged2: 150 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.

SELECT PRODUCT CITATIONS

1. Hayashi, T., et al. 2001. Requirement of Notch1 and its ligand Jagged2 expressions for spermatogenesis in rat and human testes. J. Androl. 22: 999-1011.
2. Rivolta, M.N., et al. 2002. Transcript profiling of functionally related groups of genes during conditional differentiation of a mammalian cochlear hair cell line. Genome Res. 12: 1091-1099.
3. Köhler C, et al. 2004. Expression of Notch1 and its ligand Jagged1 in rat liver during liver regeneration. Hepatology 39: 1056-1065.
4. Lehar, S.M., et al. 2005. Notch ligands δ1 and Jagged1 transmit distinct signals to T cell precursors. Blood 105: 1440-1447.
5. van den Akker, N.M., et al. 2007. Tetralogy of fallot and alterations in vascular endothelial growth factor-A signaling and Notch signaling in mouse embryos solely expressing the VEGF120 isoform. Circ. Res. 100: 842-849.
6. Wu, M., et al. 2007. Imaging hematopoietic precursor division in real time. Cell Stem Cell 1: 541-554.
7. Krawczyk, C.M., et al. 2008. Th2 differentiation is unaffected by Jagged2 expression on dendritic cells. J. Immunol. 180: 7931-7937.
8. Williams, R., et al. 2009. Notch receptor and Notch ligand expression in developing avian cartilage. J. Anat. 215: 159-169.

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.