

Jagged1 (H-114): sc-8303

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, and expression is upregulated 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 Jagged1 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. Lindsell, C.E., et al. 1995. Jagged: a mammalian ligand that activates Notch1. *Cell* 80: 909-917.

CHROMOSOMAL LOCATION

Genetic locus: JAG1 (human) mapping to 20p12.2; Jag1 (mouse) mapping to 2 F3.

SOURCE

Jagged1 (H-114) is a rabbit polyclonal antibody raised against amino acids 1110-1223 of Jagged1 of human origin.

PRODUCT

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

APPLICATIONS

Jagged1 (H-114) is recommended for detection of Jagged1 of mouse, rat and human 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Jagged1 (H-114) is also recommended for detection of Jagged1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Jagged1 siRNA (h): sc-37202, Jagged1 siRNA (m): sc-37203, Jagged1 shRNA Plasmid (h): sc-37202-SH, Jagged1 shRNA Plasmid (m): sc-37203-SH, Jagged1 shRNA (h) Lentiviral Particles: sc-37202-V and Jagged1 shRNA (m) Lentiviral Particles: sc-37203-V.

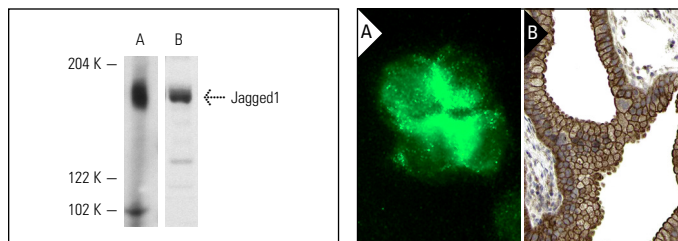
Molecular Weight of Jagged1: 150 kDa.

Positive Controls: RAW 264.7 whole cell lysate: sc-2211, human lung extract: sc-363767 or mouse embryo extract sc-364239.

STORAGE

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

DATA



Western blot analysis of Jagged1 expression in mouse embryo extract (A) and RAW 264.7 whole cell lysate (B). Antibodies tested include Jagged1 (C-20): sc-6011 (A) and Jagged1 (H-114): sc-8303 (B).

Jagged1 (H-114): sc-8303. Immunofluorescence staining of methanol-fixed RAW 264.7 cells showing cell surface localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing membrane staining of glandular cells. Kindly provided by The Swedish Human Protein Atlas (HPA) program (B).

SELECT PRODUCT CITATIONS

1. Calvi, L.M., et al. 2003. Osteoblastic cells regulate the haematopoietic stem cell niche. *Nature* 425: 841-846.
2. LaVoie, M.J., et al. 2003. The Notch ligands, Jagged and Delta, are sequentially processed by α -secretase and presenilin/ γ -secretase and release signaling fragments. *J. Biol. Chem.* 278: 34427-34437.
3. Alberi, L., et al. 2011. Activity-induced Notch signaling in neurons requires Arc/Arg3.1 and is essential for synaptic plasticity in hippocampal networks. *Neuron* 69: 437-444.
4. Shimizu, M., et al. 2011. Plasminogen activator uPA is a direct transcriptional target of the JAG1-Notch receptor signaling pathway in breast cancer. *Cancer Res.* 71: 277-286.
5. Hunkapiller, N.M., et al. 2011. A role for Notch signaling in trophoblast endovascular invasion and in the pathogenesis of pre-eclampsia. *Development* 138: 2987-2998.
6. Morikawa, M., et al. 2011. ChIP-seq reveals cell type-specific binding patterns of BMP-specific Smads and a novel binding motif. *Nucleic Acids Res.* 39: 8712-8727.

RESEARCH USE

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

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Try **Jagged1 (E-12): sc-390177** or **Jagged1 (21): sc-135955**, our highly recommended monoclonal alternatives to Jagged1 (H-114). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Jagged1 (E-12): sc-390177**.