

Jagged1 (21): sc-135955

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. 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.
6. Eldadah, Z.A., et al. 2001. Familial tetralogy of Fallot caused by mutation in the Jagged1 gene. *Hum. Mol. Genet.* 10: 163-169.

CHROMOSOMAL LOCATION

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

SOURCE

Jagged1 (21) is a mouse monoclonal antibody raised against amino acids 1015-1207 of Jagged1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Jagged1 (21) is available conjugated to agarose (sc-135955 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; and to HRP (sc-135955 HRP), 200 µg/ml, for WB, IHC(P) and ELISA.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

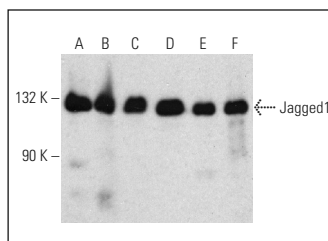
Jagged1 (21) is recommended for detection of Jagged1 of mouse, rat, human and canine origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Jagged1 siRNA (h): sc-37202, Jagged1 siRNA (m): sc-37203, Jagged1 siRNA (r): sc-61881, Jagged1 shRNA Plasmid (h): sc-37202-SH, Jagged1 shRNA Plasmid (m): sc-37203-SH, Jagged1 shRNA Plasmid (r): sc-61881-SH, Jagged1 shRNA (h) Lentiviral Particles: sc-37202-V, Jagged1 shRNA (m) Lentiviral Particles: sc-37203-V and Jagged1 shRNA (r) Lentiviral Particles: sc-61881-V.

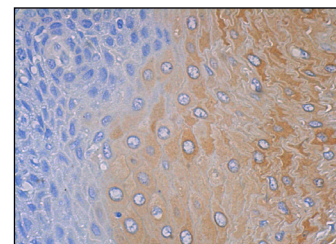
Molecular Weight of Jagged1: 150 kDa.

Positive Controls: Raji whole cell lysate: sc-364236, RAW 264.7 whole cell lysate: sc-2211 or mouse embryo extract: sc-364239.

DATA



Jagged1 (21): sc-135955. Western blot analysis of Jagged1 expression in Raji (A), OV-90 (B), Hs67 (C), MIA PaCa-2 (D) and RAW 264.7 (E) whole cell lysates and mouse embryo tissue extract (F).



Jagged1 (21) HRP: sc-135955 HRP. Direct immunoperoxidase staining of formalin fixed, paraffin-embedded human esophagus tissue showing cytoplasmic staining of squamous epithelial cells. Blocked with 0.25X UltraCruz® Blocking Reagent: sc-516214.

SELECT PRODUCT CITATIONS

1. Hammond, T.R., et al. 2014. Astrocyte-derived endothelin-1 inhibits remyelination through Notch activation. *Neuron* 81: 588-602.
2. Tang, M.R., et al. 2018. Identification of CD24 as a marker for tumorigenesis of melanoma. *Onco Targets Ther.* 11: 3401-3406.
3. Wu, C., et al. 2018. Wenshen Zhuanggu formula mitigates breast cancer bone metastasis through the signaling crosstalk among the Jagged1/Notch, TGF-β and IL-6 signaling pathways. *J. Ethnopharmacol.* 232: 145-154.
4. Tao, M., et al. 2019. Blockade of ERK1/2 by U0126 alleviates uric acid induced EMT and tubular cell injury in the rats with hyperuricemic nephropathy. *Am. J. Physiol. Renal Physiol.* E-published.

RESEARCH USE

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

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