

# Jagged2 (H-143): sc-5604

## 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

- 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.
- Simpson, P. 1994. *The Notch receptors*. Austin, TX: R.G. Landes Company.

## CHROMOSOMAL LOCATION

Genetic locus: JAG2 (human) mapping to 14q32.33; Jag2 (mouse) mapping to 12 F1.

## SOURCE

Jagged2 (H-143) is a rabbit polyclonal antibody raised against amino acids 914-1056 of Jagged2 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

Jagged2 (H-143) is recommended for detection of Jagged2 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).

Suitable for use as control antibody for Jagged2 siRNA (h): sc-39672, Jagged2 siRNA (m): sc-39673, Jagged2 shRNA Plasmid (h): sc-39672-SH, Jagged2 shRNA Plasmid (m): sc-39673-SH, Jagged2 shRNA (h) Lentiviral Particles: sc-39672-V and Jagged2 shRNA (m) Lentiviral Particles: sc-39673-V.

Molecular Weight of Jagged2: 150 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Jurkat + GM-CSF cell lysate: sc-2279.

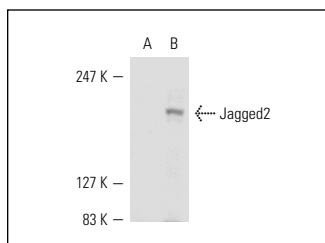
## STORAGE

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

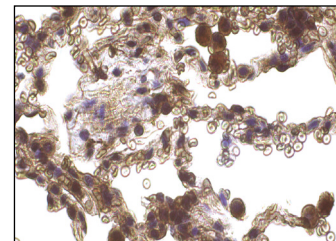
## RESEARCH USE

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

## DATA



Jagged2 (H-143): sc-5604. Western blot analysis of Jagged2 expression in untreated Jurkat (A) and GM-CSF-treated Jurkat (B) whole cell lysates.



Jagged2 (H-143): sc-5604. Immunoperoxidase staining of formalin fixed, paraffin-embedded human lung tissue showing cytoplasmic staining of macrophages and pneumocytes cells.

## SELECT PRODUCT CITATIONS

- Ando, K., et al. 2003. Induction of Notch signaling by tumor necrosis factor in rheumatoid synovial fibroblasts. *Oncogene* 22: 7796-7803.
- Radke, A.L., et al. 2009. Mature human eosinophils express functional Notch ligands mediating eosinophil autocrine regulation. *Blood* 113: 3092-3101.
- Batts, S.A., et al. 2009. Notch signaling and Hes labeling in the normal and drug-damaged organ of Corti. *Hear. Res.* 249: 15-22.
- Jia, H., et al. 2010. The expression analysis of Notch-1 and Jagged-2 during the development of the hindgut in rat embryos with ethylenethiourea induced anorectal malformations. *J. Surg. Res.* 172: 131-136.
- 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.
- Pérez-Cabezas, B., et al. 2011. Ligation of Notch receptors in human conventional and plasmacytoid dendritic cells differentially regulates cytokine and chemokine secretion and modulates Th cell polarization. *J. Immunol.* 186: 7006-7015.
- Zhao, X., et al. 2012. Derivation of myoepithelial progenitor cells from bipotent mammary stem/progenitor cells. *PLoS ONE* 7: e35338.
- Chen, G., et al. 2013. The jagged-2/notch-1/hes-1 pathway is involved in intestinal epithelium regeneration after intestinal ischemia-reperfusion injury. *PLoS ONE* 8: e76274.

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Try **Jagged2 (4F10): sc-293433**, our highly recommended monoclonal alternative to Jagged2 (H-143).