

Notch 1 (L-18): sc-23299

BACKGROUND

The LIN-12/Notch transmembrane receptors are believed to play a central role in development by regulating cell fate decisions. Four Notch homologs (Notch 1, Notch 2, Notch 3 and Notch 4) have been identified in mammals. The Notch genes are expressed in a variety of embryonic and adult tissues, suggesting that the genes are involved in multiple signaling pathways. Notch proteins have been found to be overexpressed or rearranged in human tumors. Ligands for Notch include Jagged1, Jagged2 and Delta. Jagged1 can activate Notch and prevent myoblast differentiation by inhibiting the expression of muscle regulatory and structural genes. Jagged2 may be involved in tissue development that is dependent upon epithelial-mesenchymal interactions. In addition to its normal expression in the adrenal gland and placenta, Delta expression has also been found in neuroendocrine tumors.

REFERENCES

- Weinmaster, G., et al. 1992. Notch 2: a second mammalian Notch gene. *Development* 116: 931-941.
- Kopan, R., et al. 1993. Mouse notch: expression in hair follicles correlates with cell fate determination. *J. Cell Biol.* 121: 631-641.
- 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.
- Swiatek, P.J., et al. 1994. Notch 1 is essential for postimplantation development in mice. *Genes Dev.* 8: 707-719.
- Lindsell, C.E., et al. 1995. Jagged: a mammalian ligand that activates Notch 1. *Cell* 80: 909-917.

CHROMOSOMAL LOCATION

Genetic locus: NOTCH1 (human) mapping to 9q34.3; Notch1 (mouse) mapping to 2 A3.

SOURCE

Notch 1 (L-18) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an extracellular domain of Notch 1 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.

Blocking peptide available for competition studies, sc-23299 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Notch 1 (L-18) is recommended for detection of Notch 1 precursor and mature Notch 1 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); non cross-reactive with Notch 1 NEXT and Notch 1 NICD (active form). Notch 1 (L-18) is also recommended for detection of Notch 1 precursor and mature Notch 1 in additional species, including equine, canine, bovine and avian.

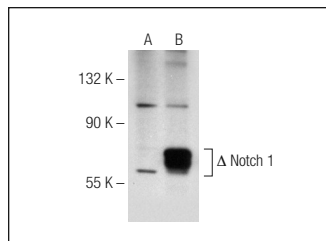
Suitable for use as control antibody for Notch 1 siRNA (h): sc-36095, Notch 1 siRNA (m): sc-36096, Notch 1 shRNA Plasmid (h): sc-36095-SH, Notch 1 shRNA Plasmid (m): sc-36096-SH, Notch 1 shRNA (h) Lentiviral Particles: sc-36095-V and Notch 1 shRNA (m) Lentiviral Particles: sc-36096-V.

Molecular Weight of full-length Notch 1: 300 kDa.

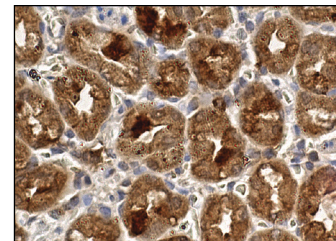
Molecular Weight of Notch 1 transmembrane fragment: 120 kDa.

Positive Controls: rat brain extract: sc-2392, FHs 173We cell lysate: sc-2417 or Notch 1 (m): 293T Lysate: sc-110326.

DATA



Notch 1 (L-18): sc-23299. Western blot analysis of Notch 1 expression in non-transfected: sc-117752 (A) and truncated mouse Notch 1 transfected: sc-110326 (B) whole cell lysates.



Notch 1 (L-18): sc-23299. Immunoperoxidase staining of formalin fixed, paraffin-embedded human stomach tissue showing cytoplasmic and nuclear staining of glandular cells.

SELECT PRODUCT CITATIONS

- Jiang, L., et al. 2011. Notch1 expression is upregulated in glioma and is associated with tumor progression. *J. Clin. Neurosci.* 18: 387-390.
- Berquam-Vrieze, K.E., et al. 2012. Characterization of transgenic mice expressing cancer-associated variants of human NOTCH1. *Genesis* 50: 112-118.
- Yao, X., et al. 2013. Vascular endothelial growth factor receptor 2 (VEGFR-2) plays a key role in vasculogenic mimicry formation, neovascularization and tumor initiation by Glioma stem-like cells. *PLoS ONE* 8: e57188.



Try **Notch 1 (A-8): sc-376403** or **Notch 1 (E-4): sc-373944**, our highly recommended monoclonal alternatives to Notch 1 (L-18). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Notch 1 (A-8): sc-376403**.