SANTA CRUZ BIOTECHNOLOGY, INC.

Notch 1 (S-20): sc-23304

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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.

CHROMOSOMAL LOCATION

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

SOURCE

Notch 1 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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-23304 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Notch 1 (S-20) is recommended for detection of Notch 1 precursor, mature Notch 1, Notch 1 NEXT and Notch 1 NICD 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Notch 1 (S-20) is also recommended for detection of Notch 1 precursor, mature Notch 1, Notch 1 NEXT and Notch 1 NICD in additional species, including equine and canine.

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.

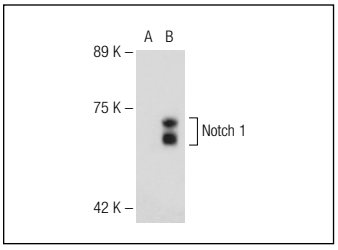
Molecular Weight of Notch 1 transmembrane fragment: 120 kDa.

Positive Controls: Notch 1 (m): 293T Lysate: sc-110326, FHs 173We cell lysate: sc-2417 or TE671 cell lysate: sc-2416.

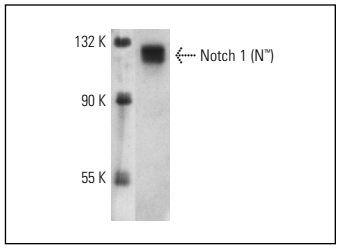
STORAGE

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

DATA



Notch 1 (S-20): sc-23304. Western blot analysis of Notch 1 expression in non-transfected: sc-117752 (**A**) and mouse Notch 1 transfected: sc-110326 (**B**) 293T whole cell lysates.



Notch 1 (S-20): sc-23304. Western blot analysis of Notch 1 expression in TE671 whole cell lysate.

SELECT PRODUCT CITATIONS

1. Dontje, W., et al. 2005. δ-like1-induced Notch 1 signalling regulates the human plasmacytoid dendritic cell versus T cell lineage decision through control of GATA-3 and Spi-B. Blood 107: 2446-2452.
2. Ng, W., et al. 2008. Human umbilical cord epithelial cells express Notch 1: implications for its epidermal-like differentiation. J. Dermatol. Sci. 49: 143-152.
3. Poulsen, T., et al. 2008. A chimeric fusion of the hASH1 and EZH2 promoters mediates high and specific reporter and suicide gene expression and cytotoxicity in small cell lung cancer cells. Cancer Gene Ther. 15: 563-575.
4. Lu, Q., et al. 2011. 14-3-3σ controls corneal epithelium homeostasis and wound healing. Invest. Ophthalmol. Vis. Sci. 52: 2389-2396.
5. Xin, Y., et al. 2011. IKK1 control of epidermal differentiation is modulated by Notch signaling. Am. J. Pathol. 178: 1568-1577.
6. Lim, S.O., et al. 2011. Notch1 differentially regulates oncogenesis by wild-type p53 overexpression and p53 mutation in grade III hepatocellular carcinoma. Hepatology 53: 1352-1362.
7. Saravanakumar, M. and Devaraj, H. 2013. Notch signalling in cardiovasculogenesis: insight into their role in early cardiovascular development. Mol. Biol. Rep. 40: 3537-3547.

RESEARCH USE

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