

Notch 1 (4i50): sc-71719

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

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- Girard, L., Hanna, Z., Beaulieu, N., Hoemann, C.D., Simard, C., Kozak, C.A. and Jolicoeur, P. 1996. Frequent provirus insertional mutagenesis of Notch 1 in thymomas of MMTVD/Myc transgenic mice suggests a collaboration of c-Myc and Notch 1 for oncogenesis. *Genes Dev.* 10: 1930-1944.

CHROMOSOMAL LOCATION

Genetic locus: Notch1 (mouse) mapping to 2 A3.

SOURCE

Notch 1 (4i50) is a Syrian hamster monoclonal antibody raised against residues 1299-1492 (region EGF repeat 33 through LNG repeat 1) of Notch 1 of mouse origin.

PRODUCT

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

APPLICATIONS

Notch 1 (4i50) is recommended for detection of Notch 1 of mouse and rat 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for Notch 1 siRNA (m): sc-36096, Notch 1 siRNA (r): sc-270189, Notch 1 shRNA Plasmid (m): sc-36096-SH, Notch 1 shRNA Plasmid (r): sc-270189-SH, Notch 1 shRNA (m) Lentiviral Particles: sc-36096-V and Notch 1 shRNA (r) Lentiviral Particles: sc-270189-V.

Molecular Weight (predicted) of Notch 1 isoforms: 210/61/40 kDa.

Molecular Weight (observed) of Notch 1: 117-218 kDa.

Positive Controls: rat brain extract: sc-2392, F9 cell lysate: sc-2245 or 3611-RF whole cell lysate: sc-2215.

SELECT PRODUCT CITATIONS

- Zhuang, Z., Lin, J., Huang, Y., Lin, T., Zheng, Z. and Ma, X. 2017. Notch 1 is a valuable therapeutic target against cell survival and proliferation in clear cell renal cell carcinoma. *Oncol. Lett.* 14: 3437-3444.
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- Wang, L.H., Xu, M., Fu, L.Q., Chen, X.Y. and Yang, F. 2018. The anti-helminthic niclosamide inhibits cancer stemness, extracellular matrix remodeling, and metastasis through dysregulation of the nuclear β-catenin/c-Myc axis in OSCC. *Sci. Rep.* 8: 12776.
- Lan, L., Wang, Y., Pan, Z., Wang, B., Yue, Z., Jiang, Z., Li, L., Wang, C. and Tang, H. 2019. Rhamnetin induces apoptosis in human breast cancer cells via the miR-34a/Notch-1 signaling pathway. *Oncol. Lett.* 17: 676-682.

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.

PROTOCOLS

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



See **Notch 1 (A-8): sc-376403** for Notch 1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.