SANTA CRUZ BIOTECHNOLOGY, INC.

Notch 1 (8G10): sc-32756

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.

REFERENCES

1. Weinmaster, G., et al. 1992. Notch 2: a second mammalian Notch gene. Development 116: 931-941.
2. Kopan, R., et al. 1993. Mouse Notch: expression in hair follicles correlates with cell fate determination. J. Cell Biol. 121: 631-641.
3. 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.

CHROMOSOMAL LOCATION

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

SOURCE

Notch 1 (8G10) 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 (8G10) 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 of full-length Notch 1: 300 kDa.

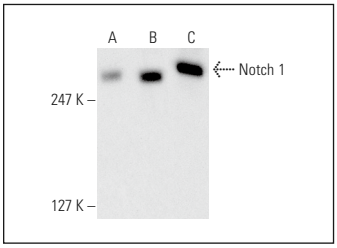
Molecular Weight of Notch 1 transmembrane fragment: 120 kDa.

Positive Controls: LADMAC whole cell lysate: sc-364189, F9 cell lysate: sc-2245 or MM-142 cell lysate: sc-2246.

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 (8G10): sc-32756. Western blot analysis of full length Notch 1 expression in F9 (**A**), LADMAC (**B**) and MM-142 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Tanabe, H., et al. 2010. Periostin associates with Notch 1 precursor to maintain Notch 1 expression under a stress condition in mouse cells. PLoS ONE 5: e12234.
2. Sánchez-Solana, B., et al. 2011. The EGF-like proteins DLK1 and DLK2 function as inhibitory non-canonical ligands of Notch 1 receptor that modulate each other's activities. Biochim. Biophys. Acta 1813: 1153-1164.
3. Chapman, M.R., et al. 2013. Sorting single satellite cells from individual myofibers reveals heterogeneity in cell-surface markers and myogenic capacity. Integr. Biol. 5: 692-702.
4. Sawaguchi, S., et al. 2017. O-GlcNAc on Notch 1 EGF repeats regulates ligand-induced Notch signaling and vascular development in mammals. Elife 6: e24419.
5. Liu, Y.J., et al. 2017. Effects and mechanism of dexmedetomidine on neuronal cell injury induced by hypoxia-ischemia. BMC Anesthesiol. 17: 117.
6. Sun, X., et al. 2019. LncRNA SNHG7 contributes to tumorigenesis and progression in breast cancer by interacting with miR-34a through EMT initiation and the Notch 1 pathway. Eur. J. Pharmacol. 856: 172407.
7. Chu, Q., et al. 2021. CDK5 positively regulates Notch 1 signaling in pancreatic cancer cells by phosphorylation. Cancer Med. 10: 3689-3699.
8. Masuda, W., et al. 2023. TM2D3, a mammalian homologue of *Drosophila* neurogenic gene product Almondex, regulates surface presentation of Notch receptors. Sci. Rep. 13: 20913.

RESEARCH USE

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

CONJUGATES

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.