SANTA CRUZ BIOTECHNOLOGY, INC.

Notch 3 (M-134): sc-5593

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

The LIN-12/Notch family of transmembrane receptors is believed to play a central role in development by regulating cell fate decisions. To date, four Notch homologs have been identified in mammals and have been designated Notch 1, Notch 2, Notch 3 and Notch 4. The Notch genes are expressed in a variety of tissues in both the embryonic and adult organism, suggesting that the genes are involved in multiple signaling pathways. The Notch proteins have been found to be overexpressed or rearranged in human tumors. Ligands for Notch include Jagged, Jagged2 and Delta. Jagged can activate Notch and prevent myoblast differentiation by inhibiting the expression of muscle regulatory and structural genes. Jagged2 is thought to be involved in the development of various tissues whose development is dependent upon epithelial-mesenchymal interactions. Normal Delta expression is restricted to the adrenal gland and placenta. Delta expression has also been found in neuroendocrine tumors such as neuroblastomas and pheochromocytomas.

CHROMOSOMAL LOCATION

Genetic locus: NOTCH3 (human) mapping to 19p13.12; Notch3 (mouse) mapping to 17 B1.

SOURCE

Notch 3 (M-134) is a rabbit polyclonal antibody raised against amino acids 2107-2240 of Notch 3 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 3 (M-134) is recommended for detection of Notch 3 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).

Notch 3 (M-134) is also recommended for detection of Notch 3 in additional species, including porcine.

Suitable for use as control antibody for Notch 3 siRNA (h): sc-37135, Notch 3 siRNA (m): sc-37136, Notch 3 shRNA Plasmid (h): sc-37135-SH, Notch 3 shRNA Plasmid (m): sc-37136-SH, Notch 3 shRNA (h) Lentiviral Particles: sc-37135-V and Notch 3 shRNA (m) Lentiviral Particles: sc-37136-V.

Molecular Weight of Notch 3: 280/120 kDa.

Positive Controls: BC_3H1 cell lysate: sc-2299.

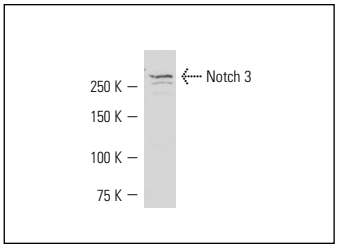
STORAGE

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

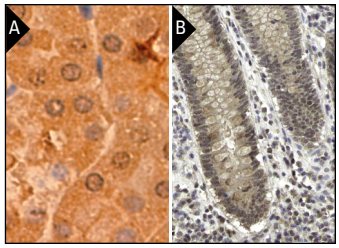
RESEARCH USE

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

DATA



Notch 3 (M-134): sc-5593. Western blot analysis of Notch 3 expression in BC_3H1 whole cell lysate.



Notch 3 (M-134): sc-5593. Immunoperoxidase staining of formalin-fixed, paraffin-embedded mouse kidney tissue showing membrane and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human appendix tissue showing membrane, cytoplasmic and nuclear staining of glandular and lymphoid cells magnification. Kindly provided by The Swedish Human Protein Atlas (HPA) program (**B**).

SELECT PRODUCT CITATIONS

1. Jensen, C.H., et al. 2004. Transit-amplifying ductular (oval) cells and their hepatocytic progeny are characterized by a novel and distinctive expression of Delta-like protein/preadipocyte factor 1/fetal antigen 1. Am. J. Pathol. 164: 1347-1359.
2. Sharma, M., et al. 2004. Coexpression of Cux-1 and Notch signaling pathway components during kidney development. Dev. Dyn. 231: 828-838.
3. Baumgart, A., et al. 2010. ADAM17 regulates epidermal growth factor receptor expression through the activation of Notch1 in non-small cell lung cancer. Cancer Res. 70: 5368-5378.
4. Chen, J., et al. 2010. Inhibition of notch signaling blocks growth of glioblastoma cell lines and tumor neurospheres. Genes Cancer 1: 822-835.
5. 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.
6. Yang, Y., et al. 2011. The Notch ligand Jagged2 promotes lung adenocarcinoma metastasis through a miR-200-dependent pathway in mice. J. Clin. Invest. 121: 1373-1385.
7. Whyte, J.L., et al. 2011. Density of human bone marrow stromal cells reg-ulates commitment to vascular lineages. Stem Cell Res. 6: 238-250.
8. Raafat, A., et al. 2011. Expression of Notch receptors, ligands, and target genes during development of the mouse mammary gland. J. Cell. Physiol. 226: 1940-1952.