SANTA CRUZ BIOTECHNOLOGY, INC.

Notch 1 (A-8): sc-376403

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 (A-8) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2415-2453 near the C-terminus of Notch 1 of human origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Notch 1 (A-8) is available conjugated to agarose (sc-376403 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376403 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; and to either phycoerythrin (sc-376403 PE), fluorescein (sc-376403 FITC) or Alexa Fluor® 488 (sc-376403 AF488) or Alexa Fluor® 647 (sc-376403 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM.

Blocking peptide available for competition studies, sc-376403 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

Notch 1 (A-8) is recommended for detection of Notch 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

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.

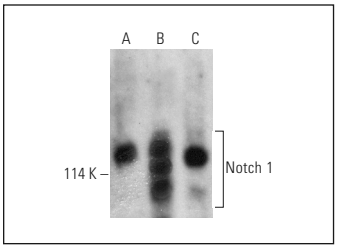
Molecular Weight of full-length Notch 1: 300 kDa.

Molecular Weight of Notch 1 transmembrane fragment: 120 kDa.

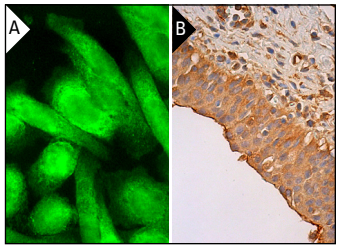
STORAGE

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

DATA



Notch 1 (A-8) HRP: sc-376403 HRP. Direct western blot analysis of Notch 1 expression in CCRF-CEM (**A**), SUP-T1 (**B**) and F9 (**C**) whole cell lysates.



Notch 1 (A-8) Alexa Fluor® 488: sc-376403 AF488. Direct immunofluorescence staining of formalin-fixed SW480 cells showing membrane, cytoplasmic and nuclear localization. Blocked with UltraCruz® Blocking Reagent: sc-516214 (**A**). Notch 1 (A-8): sc-376403. Immunoperoxidase staining of formalin fixed, paraffin-embedded human urinary bladder tissue showing cytoplasmic staining of urothelial cells (**B**).

SELECT PRODUCT CITATIONS

1. Geng, X., et al. 2015. Electroacupuncture in the repair of spinal cord injury: inhibiting the Notch signaling pathway and promoting neural stem cell proliferation. Neural Regen. Res. 10: 394-403.
2. Lian, W., et al. 2017. AP-2α reverses vincristine-induced multidrug resistance of SGC7901 gastric cancer cells by inhibiting the Notch pathway. Apoptosis 22: 933-941.
3. Chiappara, G., et al. 2018. Notch 1 signaling activation sustains overexpression of interleukin 33 in the epithelium of nasal polyps. J. Cell. Physiol. 234: 4582-4596.
4. Deng, J., et al. 2019. N-acetylcysteine decreases malignant characteristics of glioblastoma cells by inhibiting Notch 2 signaling. J. Exp. Clin. Cancer Res. 38: 2.
5. Liu, W., et al. 2019. Mesenchymal stem cells alleviate the early brain injury of subarachnoid hemorrhage partly by suppression of Notch 1-dependent neuroinflammation: involvement of Botch. J. Neuroinflammation 16: 8.
6. Di Sano, C., et al. 2020. Impaired activation of Notch-1 signaling hinders repair processes of bronchial epithelial cells exposed to cigarette smoke. Toxicol. Lett. 326: 61-69.
7. Steinhaeuser, S.S., et al. 2020. ECM1 secreted by HER2-overexpressing breast cancer cells promotes formation of a vascular niche accelerating cancer cell migration and invasion. Lab. Invest. 100: 928-944.
8. Xuan, W., et al. 2020. Extracellular vesicles from Notch activated cardiac mesenchymal stem cells promote myocyte proliferation and neovasculogenesis. Front. Cell Dev. Biol. 8: 11.

RESEARCH USE

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