SANTA CRUZ BIOTECHNOLOGY, INC.

Notch 2 (C-2): sc-518049

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.

REFERENCES

1. Weinmaster, G., et al. 1992. Notch 2: a second mammalian Notch gene. Development 116: 931-941.
2. 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.
3. Kopan, R., et al. 1993. Mouse Notch: expression in hair follicles correlates with cell fate determination. J. Cell Biol. 121: 631-641.
4. Swiatek, P.J., et al. 1994. Notch 1 is essential for postimplantation development in mice. Genes Dev. 8: 707-719.

CHROMOSOMAL LOCATION

Genetic locus: Notch2 (mouse) mapping to 3 F2.2.

SOURCE

Notch 2 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2442-2471 at the C-terminus of Notch 2 of mouse 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 2 (C-2) is available conjugated to agarose (sc-518049 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518049 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518049 PE), fluorescein (sc-518049 FITC), Alexa Fluor® 488 (sc-518049 AF488), Alexa Fluor® 546 (sc-518049 AF546), Alexa Fluor® 594 (sc-518049 AF594) or Alexa Fluor® 647 (sc-518049 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518049 AF680) or Alexa Fluor® 790 (sc-518049 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

RESEARCH USE

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

APPLICATIONS

Notch 2 (C-2) is recommended for detection of Notch 2 of mouse and rat 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Notch 2 siRNA (m): sc-40136, Notch 2 shRNA Plasmid (m): sc-40136-SH and Notch 2 shRNA (m) Lentiviral Particles: sc-40136-V.

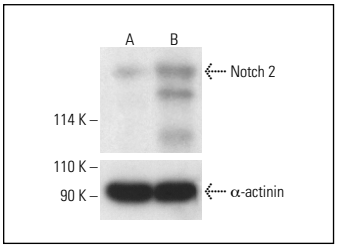
Molecular Weight of Notch 2: 265 kDa.

Positive Controls: Notch 2 (m): 293T Lysate: sc-375173 or chemically-treated HCT-116 whole cell lysate.

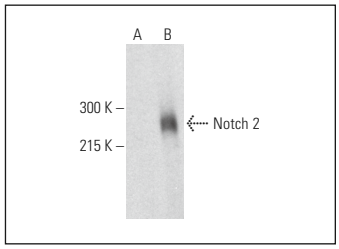
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein L-Agarose: sc-2336 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



Notch 2 (C-2): sc-518049. Western blot analysis of Notch 2 expression in untreated (**A**) and chemically-treated (**B**) HCT-116 whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102. α-actinin (H-2): sc-17829 used as loading control. Detection reagent used: m-IgG_1 BP-HRP: sc-525408.



Notch 2 (C-2): sc-518049. Western blot analysis of Notch 2 expression in non-transfected: sc-117752 (**A**) and mouse Notch 2 transfected: sc-375173 (**B**) 293T whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.

SELECT PRODUCT CITATIONS

1. Zhang, S. and Cui, Z. 2021. MicroRNA-34b-5p inhibits proliferation, stemness, migration and invasion of retinoblastoma cells via Notch signaling. Exp. Ther. Med. 21: 255.

STORAGE

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