SANTA CRUZ BIOTECHNOLOGY, INC.

Notch 2 (F-10): sc-518169

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. 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.
4. Swiatek, P.J., et al. 1994. Notch 1 is essential for postimplantation development in mice. Genes Dev. 8: 707-719.
5. Simpson, P. 1994. The Notch receptors. Austin, TX: R.G. Landes Company.

CHROMOSOMAL LOCATION

Genetic locus: NOTCH2 (human) mapping to 1p12.

SOURCE

Notch 2 (F-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 248-272 of Notch 2 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 2 (F-10) is available conjugated to agarose (sc-518169 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-518169 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-518169 PE), fluorescein (sc-518169 FITC), Alexa Fluor® 488 (sc-518169 AF488), Alexa Fluor® 546 (sc-518169 AF546), Alexa Fluor® 594 (sc-518169 AF594) or Alexa Fluor® 647 (sc-518169 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-518169 AF680) or Alexa Fluor® 790 (sc-518169 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

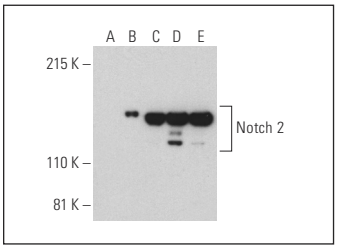
Notch 2 (F-10) is recommended for detection of Notch 2 of human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Notch 2 siRNA (h): sc-40135, Notch 2 shRNA Plasmid (h): sc-40135-SH and Notch 2 shRNA (h) Lentiviral Particles: sc-40135-V.

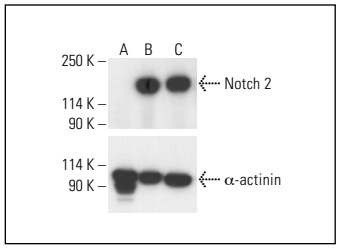
Molecular Weight of Notch 2: 265 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225, HeLa whole cell lysate: sc-2200 or SK-MEL-28 cell lysate: sc-2236.

DATA



Notch 2 (F-10): sc-518169. Western blot analysis of Notch 2 expression in non-transfected 293T: sc-117752 (**A**), mouse Notch 2 transfected 293T: sc-375173 (**B**), HeLa (**C**), SK-MEL-28 (**D**) and CCRF-CEM (**E**) whole cell lysates. Detection reagent used: m-IgGκ BP-HRP: sc-516102.



Notch 2 (F-10): sc-518169. Western blot analysis of Notch 2 expression in untreated (**A**) and chemically-treated (**B**, **C**) A549 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.

SELECT PRODUCT CITATIONS

1. 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.
2. Zheng, Z.Q., et al. 2023. Development and validation of an immune infiltration/tumor proliferation-related Notch3 nomogram for predicting survival in patients with primary glioblastoma. Front. Genet. 14: 1148126.

STORAGE

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

PROTOCOLS

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