

# Notch 1 (E-4): sc-373944

## 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

- Weinmaster, G., et al. 1992. Notch 2: a second mammalian Notch gene. *Development* 116: 931-941.
- Kopan, R. and Weintraub, H. 1993. Mouse Notch: expression in hair follicles correlates with cell fate determination. *J. Cell Biol.* 121: 631-641.
- 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 (human) mapping to 9q34.3; Notch1 (mouse) mapping to 2 A3.

## SOURCE

Notch 1 (E-4) is a mouse monoclonal antibody raised against a peptide mapping near the C-terminus of Notch 1 of human origin.

## PRODUCT

Each vial contains 200 µg IgG<sub>2b</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Notch 1 (E-4) is available conjugated to agarose (sc-373944 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-373944 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373944 PE), fluorescein (sc-373944 FITC), Alexa Fluor® 488 (sc-373944 AF488), Alexa Fluor® 546 (sc-373944 AF546), Alexa Fluor® 594 (sc-373944 AF594) or Alexa Fluor® 647 (sc-373944 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373944 AF680) or Alexa Fluor® 790 (sc-373944 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-373944 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

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## RESEARCH USE

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

## APPLICATIONS

Notch 1 (E-4) is recommended for detection of Notch 1 precursor, mature Notch 1, Notch 1 NEXT and Notch 1 NICD 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Notch 1 (E-4) is also recommended for detection of Notch 1 precursor, mature Notch 1, Notch 1 NEXT and Notch 1 NICD in additional species, including equine.

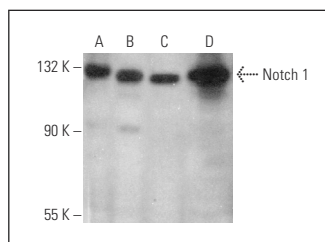
Suitable for use as control antibody for Notch 1 siRNA (h): sc-36095, Notch 1 siRNA (m): sc-36096, Notch 1 shRNA Plasmid (h): sc-36095-SH, Notch 1 shRNA Plasmid (m): sc-36096-SH, Notch 1 shRNA (h) Lentiviral Particles: sc-36095-V and Notch 1 shRNA (m) Lentiviral Particles: sc-36096-V.

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

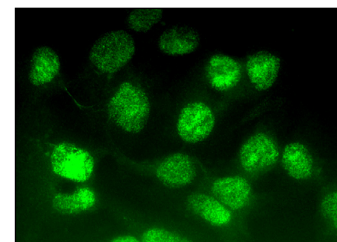
Molecular Weight of Notch 1 transmembrane fragment: 120 kDa.

Positive Controls: MOLT-4 cell lysate: sc-2233, CCRF-CEM cell lysate: sc-2225 or TE671 cell lysate: sc-2416.

## DATA



Notch 1 (E-4): sc-373944. Western blot analysis of Notch 1 expression in CCRF-CEM (A), TE671 (B), MM-142 (C) and MOLT-4 (D) whole cell lysates.



Notch 1 (E-4): sc-373944. Immunofluorescence staining of formalin-fixed Hep G2 cells showing nuclear localization.

## SELECT PRODUCT CITATIONS

- Wang, Y., et al. 2016. Anticancer effect of eupatilin on glioma cells through inhibition of the Notch-1 signaling pathway. *Mol. Med. Rep.* 13: 1141-1146.
- Shen, J. and Li, M. 2018. MicroRNA-744 inhibits cellular proliferation and invasion of colorectal cancer by directly targeting oncogene Notch 1. *Oncol. Res.* 26: 1401-1409.
- Frick, A., et al. 2021. A novel PAK1-Notch1 axis regulates crypt homeostasis in intestinal inflammation. *Cell. Mol. Gastroenterol. Hepatol.* 11: 892-907.e1.

## STORAGE

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