SANTA CRUZ BIOTECHNOLOGY, INC.

# Notch 1 (mN1A): sc-32745

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 (mN1A) is a mouse monoclonal antibody raised against the cdc10-NCR region of Notch 1 of mouse origin.

## PRODUCT

Each vial contains 200 µg $IgG_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Notch 1 (mN1A) is available conjugated to agarose (sc-32745 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-32745 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-32745 PE), fluorescein (sc-32745 FITC), Alexa Fluor® 488 (sc-32745 AF488), Alexa Fluor® 546 (sc-32745 AF546), Alexa Fluor® 594 (sc-32745 AF594) or Alexa Fluor® 647 (sc-32745 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-32745 AF680) or Alexa Fluor® 790 (sc-32745 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

## APPLICATIONS

Notch 1 (mN1A) is recommended for detection of Notch 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

Suitable for use as control antibody for Notch 1 siRNA (h): sc-36095, Notch 1 siRNA (m): sc-36096, Notch 1 siRNA (r): sc-270189, Notch 1 shRNA Plasmid (h): sc-36095-SH, Notch 1 shRNA Plasmid (m): sc-36096-SH, Notch 1 shRNA Plasmid (r): sc-270189-SH, Notch 1 shRNA (h) Lentiviral Particles: sc-36095-V, Notch 1 shRNA (m) Lentiviral Particles: sc-36096-V and Notch 1 shRNA (r) Lentiviral Particles: sc-270189-V.

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

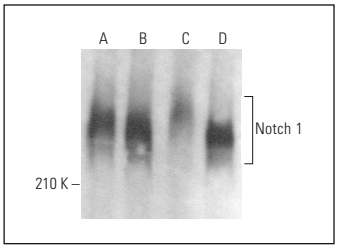
Molecular Weight of Notch 1 transmembrane fragment: 120 kDa.

Positive Controls: F9 cell lysate: sc-2245, MM-142 cell lysate: sc-2246 or LADMAC whole cell lysate: sc-364189.

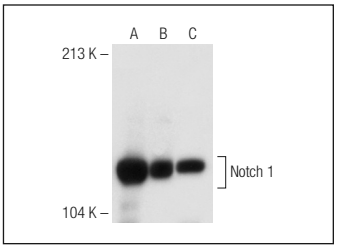
## STORAGE

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

## DATA




Notch 1 (mN1A): sc-32745. Western blot analysis of Notch 1 expression in CCRF-CEM (**A**), HL-60 (**B**), THP-1 (**C**) and SUP-T1 (**D**) whole cell lysates.




Notch 1 (mN1A): sc-32745. Western blot analysis of Notch 1 expression in MM-142 (**A**), F9 (**B**) and LADMAC (**C**) whole cell lysates.

## SELECT PRODUCT CITATIONS


1. Montiel-Duarte, C., et al. 2004. Role of reactive oxygen species, glutathione and NFκB in apoptosis induced by 3,4-methylenedioxymethamphet-amine ("Ecstasy") on hepatic stellate cells. Biochem. Pharmacol. 67: 1025-1033.
2. Lin, Y.W., et al. 2006. Notch 1 mutations are important for leukemic transformation in murine models of precursor-T leukemia/lymphoma. Blood 107: 2540-2543.
3. Sun, H., et al. 2007. Stra13 regulates satellite cell activation by antagonizing Notch signaling. J. Cell Biol. 177: 647-657.
4. Kefas, B., et al. 2009. The neuronal microRNA miR-326 acts in a feedback loop with Notch and has therapeutic potential against brain tumors. J. Neurosci. 29: 15161-15168.
5. Baumgart, A., et al. 2010. ADAM17 regulates epidermal growth factor receptor expression through the activation of Notch 1 in non-small cell lung cancer. Cancer Res. 70: 5368-5378.
6. Liu, M., et al. 2012. IKKα activation of Notch links tumorigenesis via FOXA2 suppression. Mol. Cell 45: 171-184.
7. Cui, H., et al. 2013. Notch 3 functions as a tumor suppressor by controlling cellular senescence. Cancer Res. 73: 3451-3459.
8. Sha, L., et al. 2014. Notch signaling activation promotes seizure activity in temporal lobe epilepsy. Mol. Neurobiol. 49: 633-644.
9. Ortega, M., et al. 2015. A microRNA-mediated regulatory loop modulates Notch and Myc oncogenic signals in B- and T-cell malignancies. Leukemia 29: 968-976.
10. Yao, J., et al. 2015. Interference of Notch 1 inhibits the growth of glioma cancer cells by inducing cell autophagy and down-regulation of Notch 1-Hes-1 signaling pathway. Med. Oncol. 32: 610.


## RESEARCH USE

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