SANTA CRUZ BIOTECHNOLOGY, INC.

Notch 1 (m): 293T Lysate: sc-110326

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 Jagged1, 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. Lindsell, C.E., et al. 1995. Jagged: a mammalian ligand that activates Notch 1. Cell 80: 909-917.
6. Uyttendaele, H., et al. 1996. Notch 4/int-3, a mammary proto-oncogene, is an endothelial cell-specific mammalian Notch gene. Development 122: 2251-2259.
7. Girard, L., et al. 1996. Frequent provirus insertional mutagenesis of Notch 1 in thymomas of MMTVD/Myc transgenic mice suggests a collaboration of c-Myc and Notch 1 for oncogenesis. Genes Dev. 10: 1930-1944.

CHROMOSOMAL LOCATION

Genetic locus: Notch1 (mouse) mapping to 2 A3.

PRODUCT

Notch 1 (m): 293T Lysate represents a lysate of mouse Notch 1 transfected 293T cells and is provided as 100 µg protein in 200 µl SDS-PAGE buffer.

STORAGE

Store at -20° C. Repeated freezing and thawing should be minimized. Sample vial should be boiled once prior to use. Non-hazardous. No MSDS required.

PROTOCOLS

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

APPLICATIONS

Notch 1 (m): 293T Lysate is suitable as a Western Blotting positive control for mouse reactive Notch 1 antibodies. Recommended use: 10-20 µl per lane.

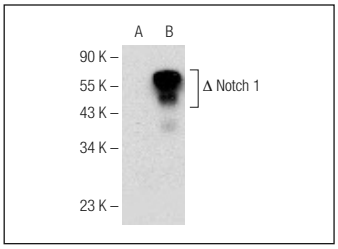
Control 293T Lysate: sc-117752 is available as a Western Blotting negative control lysate derived from non-transfected 293T cells.

Notch 1 (C-10): sc-373891 is recommended as a positive control antibody for Western Blot analysis of enhanced mouse Notch 1 expression in Notch 1 transfected 293T cells (starting dilution 1:100, dilution range 1:100-1:1,000).

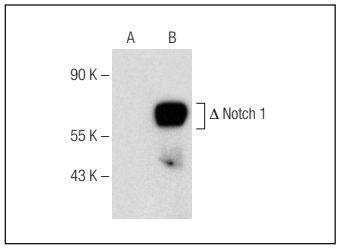
RECOMMENDED SUPPORT REAGENTS

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.

DATA



Notch 1 (C-10): sc-373891. Western blot analysis of Notch 1 expression in non-transfected: sc-117752 (**A**) and truncated mouse Notch 1 transfected: sc-110326 (**B**) 293T whole cell lysates.



Notch 1 (E-4): sc-373944. Western blot analysis of Notch 1 expression in non-transfected: sc-117752 (**A**) and truncated mouse Notch 1 transfected: sc-110326 (**B**) 293T whole cell lysates.

RESEARCH USE

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