

Delta (C-20): sc-8155

BACKGROUND

The LIN-12/Notch family of transmembrane receptors is believed to play a central role in development by regulating cell fate decisions. Notch proteins have been found to be overexpressed or rearranged in human tumors. Ligands for Notch include Jagged, Jagged-2 and Delta. While blocking the differentiation of progenitor cells into the B-cell lineage, Delta promotes the emergence of a population of cells with T-cell/NK-cell characteristics. The protein is a membrane protein expressed in heart, pancreas, brain and muscle during gastrulation and early organogenesis and in adult heart and lung.

REFERENCES

1. Simpson, P. 1994. The Notch receptors. Austin, TX. R.G. Landes Company.
2. Bettenhausen, B., et al. 1995. Transient and restricted expression during mouse embryogenesis of Dll1, a murine gene closely related to *Drosophila* Delta. *Development* 121: 2407-2418.
3. Girard, L., et al. 1996. Frequent provirus insertional mutagenesis of Notch1 in thymomas of MMTVD/Myc transgenic mice suggests a collaboration of c-Myc and Notch1 for oncogenesis. *Genes Dev.* 10: 1930-1944.

CHROMOSOMAL LOCATION

Genetic locus: DLL1 (human) mapping to 6q27, DLL4 (human) mapping to 15q15.1; Dll1 (mouse) mapping to 17 A2, Dll4 (mouse) mapping to 2 E5.

SOURCE

Delta (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Delta of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-8155 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Delta (C-20) is recommended for detection of Delta-1 and Delta-4 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

Delta (C-20) is also recommended for detection of Delta-1 and Delta-4 in additional species, including equine, canine, bovine, porcine and avian.

Molecular Weight of Delta: 75 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, mouse lung extract: sc-2390 or Caki-1 cell lysate: sc-2224.

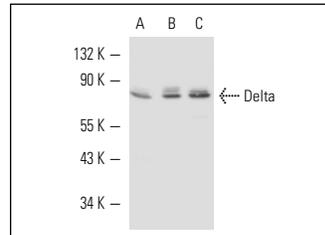
STORAGE

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

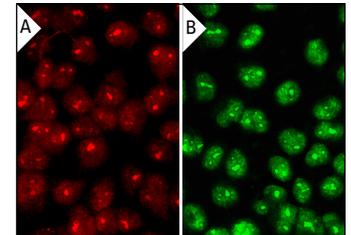
RESEARCH USE

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

DATA



Delta (C-20): sc-8155. Western blot analysis of Delta expression in HeLa (A) and Caki-1 (B) whole cell lysates and mouse lung tissue extract (C).



Delta (C-20): sc-8155. Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization (A). Immunofluorescence staining of methanol-fixed HeLa cells showing nucleolar and nuclear localization (B).

SELECT PRODUCT CITATIONS

1. Rivero-Lezcano, O.M., et al. 1994. Physical association between Src homology 3 elements and the protein product of the c-cbl proto-oncogene. *J. Biol. Chem.* 269: 17363-17366.
2. Yoshimatsu, T., et al. 2006. Non-cell-autonomous action of Stat3 in maintenance of neural precursor cells in the mouse neocortex. *Development* 133: 2553-2563.
3. Santos, M.A., et al. 2007. Notch1 engagement by Delta-like-1 promotes differentiation of B lymphocytes to antibody-secreting cells. *Proc. Natl. Acad. Sci. USA* 104: 15454-15459.
4. van Tetering, G., et al. 2009. Metalloprotease ADAM10 is required for Notch1 site 2 cleavage. *J. Biol. Chem.* 284: 31018-31027.
5. Liu, S., et al. 2009. Downregulation of Notch signaling by γ -secretase inhibition can abrogate chemotherapy-induced apoptosis in T-ALL cell lines. *Ann. Hematol.* 88: 613-621.
6. Baumgart, A., et al. 2010. ADAM17 regulates epidermal growth factor receptor expression through the activation of Notch1 in non-small cell lung cancer. *Cancer Res.* 70: 5368-5378.
7. Bordonaro, M., et al. 2011. The Notch ligand Delta-like 1 integrates inputs from TGF β /Activin and Wnt pathways. *Exp. Cell Res.* 317: 1368-1381.
8. Yang, Y., et al. 2011. The Notch ligand Jagged2 promotes lung adenocarcinoma metastasis through a miR-200-dependent pathway in mice. *J. Clin. Invest.* 121: 1373-1385.


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Try **Delta (G-1): sc-377310** or **Delta (E-5): sc-377447**, our highly recommended monoclonal alternatives to Delta (C-20).