

# 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.

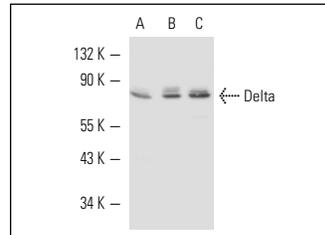
## STORAGE

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

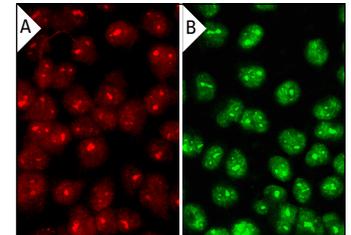
## RESEARCH USE

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  $\gamma$ -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 $\beta$ /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).