

Delta (H-20): sc-12531

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.
4. Jaleco, A.C., et al. 2001. Differential effects of Notch ligands Delta-1 and Jagged-1 in human lymphoid differentiation. *J. Exp. Med.* 7: 991-1002.

CHROMOSOMAL LOCATION

Genetic locus: DLL1 (human) mapping to 6q27; Dll1 (mouse) mapping to 17 A2.

SOURCE

Delta (H-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-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-12531 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Delta (H-20) is recommended for detection of Delta of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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 (H-20) is also recommended for detection of Delta in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for Delta siRNA (h): sc-37200, Delta siRNA (m): sc-37201, Delta shRNA Plasmid (h): sc-37200-SH, Delta shRNA Plasmid (m): sc-37201-SH, Delta shRNA (h) Lentiviral Particles: sc-37200-V and Delta shRNA (m) Lentiviral Particles: sc-37201-V.

Molecular Weight of Delta: 75 kDa.

Positive Controls: Caki-1 cell lysate: sc-2224, mouse lung extract: sc-2390 or ECV304 cell lysate: sc-2269.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

SELECT PRODUCT CITATIONS

1. Conboy, I.M., et al. 2002. The regulation of Notch signaling controls satellite cell activation and cell fate determination in postnatal myogenesis. *Dev. Cell* 3: 397-409.
2. LaVoie, M.J., et al. 2003. The Notch ligands, Jagged and Delta, are sequentially processed by α -secretase and presenilin/ γ -secretase and release signaling fragments. *J. Biol. Chem.* 278: 34427-34437.
3. Morgan, S.C., et al. 2004. Microglia release activators of neuronal proliferation mediated by activation of mitogen-activated protein kinase, phosphatidylinositol-3-kinase/Akt and Delta-Notch signalling cascades. *J. Neurochem.* 90: 89-101.
4. DeYulia, G.J., et al. 2005. Hydrogen peroxide generated extracellularly by receptor-ligand interaction facilitates cell signaling. *Proc. Natl. Acad. Sci. USA* 102: 5044-5049.
5. King, A.M., et al. 2007. Accelerated Notch-dependent degradation of E47 proteins in aged B cell precursors is associated with increased ERK MAPK activation. *J. Immunol.* 178: 3521-3529.

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.

PROTOCOLS

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

MONOS
Satisfaction
Guaranteed

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