

Delta-4 (H-70): sc-28915

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. Delta-4 is a membrane protein that activates Notch-1 and Notch-4. It is expressed in a wide range of adult and fetal tissues, especially in vascular endothelium.

REFERENCES

1. Karanu, F.N., et al. 2001. Human homologues of Delta-1 and Delta-4 function as mitogenic regulators of primitive human hematopoietic cells. *Blood* 97: 1960-1967.
2. Yoneya, T., et al. 2001. Molecular cloning of Delta-4, a new mouse and human Notch ligand. *J. Biochem.* 129: 27-34.

CHROMOSOMAL LOCATION

Genetic locus: DLL4 (human) mapping to 15q15.1; Dll4 (mouse) mapping to 2 E5.

SOURCE

Delta-4 (H-70) is a rabbit polyclonal antibody raised against amino acids 171-240 mapping within an N-terminal extracellular domain of Delta-4 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.

APPLICATIONS

Delta-4 (H-70) is recommended for detection of precursor and mature 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-4 (H-70) is also recommended for detection of precursor and mature Delta-4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for Delta-4 siRNA (h): sc-39667, Delta-4 siRNA (m): sc-39668, Delta-4 shRNA Plasmid (h): sc-39667-SH, Delta-4 shRNA Plasmid (m): sc-39668-SH, Delta-4 shRNA (h) Lentiviral Particles: sc-39667-V and Delta-4 shRNA (m) Lentiviral Particles: sc-39668-V.

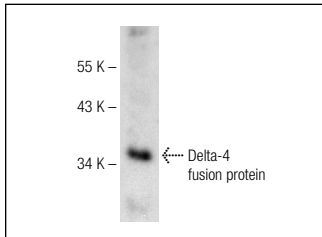
Molecular Weight of Delta-4: 75 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203.

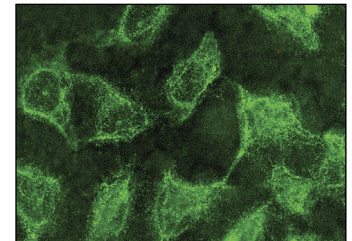
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Delta-4 (H-70): sc-28915. Western blot analysis of human recombinant Delta-4 fusion protein.



Delta-4 (H-70): sc-28915. Immunofluorescence staining of methanol-fixed HeLa cells showing membrane localization.

SELECT PRODUCT CITATIONS

1. Niimi, H., et al. 2007. Notch signaling is necessary for epithelial growth arrest by TGF-β. *J. Cell Biol.* 176: 695-707.
2. Hernandez, F., et al. 2011. Role of the DLL4-NOTCH system in PGF2α-induced luteolysis in the pregnant rat. *Biol. Reprod.* 84: 859-865.
3. Pérez-Cabezas, B., et al. 2011. Ligation of Notch receptors in human conventional and plasmacytoid dendritic cells differentially regulates cytokine and chemokine secretion and modulates Th cell polarization. *J. Immunol.* 186: 7006-7015.

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.


 MONOS
Satisfaction
Guaranteed

Try **Delta-4 (G-12): sc-365429**, our highly recommended monoclonal alternative to Delta-4 (H-70).