

Delta-4 (C-20): sc-18640

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.

CHROMOSOMAL LOCATION

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

SOURCE

Delta-4 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus 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.

Blocking peptide available for competition studies, sc-18640 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

Delta-4 (C-20) 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), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (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 (C-20) 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.

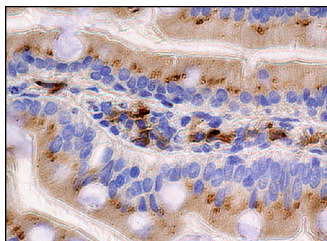
Molecular Weight of Delta-4: 75 kDa.

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 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Delta-4 (C-20): sc-18640. Immunoperoxidase staining of formalin fixed, paraffin-embedded human duodenum tissue showing cytoplasmic staining of glandular cells.

SELECT PRODUCT CITATIONS

- Sharma, M., et al. 2004. Coexpression of Cux-1 and Notch signaling pathway components during kidney development. *Dev. Dyn.* 231: 828-838.
- Williams, C.K., et al. 2006. Up-regulation of the Notch ligand Delta-like 4 inhibits VEGF-induced endothelial cell function. *Blood* 107: 931-939.
- Hunkapiller, N.M., et al. 2011. A role for Notch signaling in trophoblast endovascular invasion and in the pathogenesis of pre-eclampsia. *Development* 138: 2987-2998.
- Ochi, A., et al. 2012. Toll-like receptor 7 regulates pancreatic carcinogenesis in mice and humans. *J. Clin. Invest.* 122: 4118-4129.

PROTOCOLS

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Try **Delta-4 (G-12): sc-365429**, our highly recommended monoclonal alternative to Delta-4 (C-20).