Deltex-1 (D-20): sc-46089



The Power to Question

BACKGROUND

Deltex-1 (DTX) influences B cell lineage and splenic marginal zone B cell commitment. The inhibitory signals mediated through Deltex-1 along with inductive Notch 1 signals act as modulators of T/B lineage commitment. Deltex family members influence Notch signaling and may regulate transcription through interactions with specific transcription factors. Deltex proteins have a basic N-terminus, a central proline-rich region, and a C-terminal RING finger domain, a motif often found in ubiquitin-protein isopeptide ligases (E3). Kurtz (Krz) is an Arrestin family member that binds Deltex in a trimeric complex together with Notch and mediates the degradation of the Notch receptor through a ubiquitination-dependent pathway.

REFERENCES

- 1. Matsuno, K., et al. 1998. Human Deltex is a conserved regulator of Notch signaling. Nat. Genet. 19: 74-78.
- Yamamoto, N., et al. 2001. Role of Deltex-1 as a transcriptional regulator downstream of the Notch receptor. J. Biol. Chem. 276: 45031-45040.
- 3. Izon, D.J., et al. 2002. Deltex-1 redirects lymphoid progenitors to the B cell lineage by antagonizing Notch 1. Immunity 16: 231-243.
- Takeyama, K., et al. 2003. The BAL-binding protein BBAP and related Deltex family members exhibit ubiquitin-protein isopeptide ligase activity. J. Biol. Chem. 278: 21930-21937.
- Cui, X.Y., et al. 2004. NB-3/Notch 1 pathway via Deltex-1 promotes neural progenitor cell differentiation into oligodendrocytes. J. Biol. Chem. 279: 25858-25865.
- 6. Liu, W.H., et al. 2005. Deltex regulates T cell activation by targeted degradation of active MEKK1. Mol. Cell. Biol. 25: 1367-1378.
- 7. Storck, S., et al. 2005. Normal immune system development in mice lacking the Deltex-1 RING finger domain. Mol. Cell. Biol. 25: 1437-1445.
- 8. Mukherjee, A., et al. 2005. Regulation of Notch signaling by non-visual β-Arrestin. Nat. Cell Biol. 7: 1091-1101.

CHROMOSOMAL LOCATION

Genetic locus: DTX1 (human) mapping to 12q24.13; Dtx1 (mouse) mapping to 5 $\rm F$.

SOURCE

Deltex-1 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of Deltex-1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-46089 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

Deltex-1 (D-20) is recommended for detection of Deltex-1 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), 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).

Deltex-1 (D-20) is also recommended for detection of Deltex-1 in additional species, including bovine and porcine.

Suitable for use as control antibody for Deltex-1 siRNA (h): sc-45649, Deltex-1 siRNA (m): sc-45650, Deltex-1 shRNA Plasmid (h): sc-45649-SH, Deltex-1 shRNA Plasmid (m): sc-45650-SH, Deltex-1 shRNA (h) Lentiviral Particles: sc-45649-V and Deltex-1 shRNA (m) Lentiviral Particles: sc-45650-V.

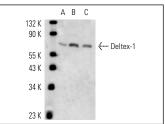
Molecular Weight of Deltex-1: 67 kDa.

Positive Controls: SJRH30 cell lysate: sc-2287, K-562 whole cell lysate: sc-2203 or Hs 294T whole cell lysate.

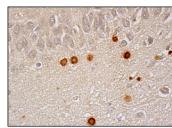
RECOMMENDED SECONDARY REAGENTS

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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. 4) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



Deltex-1 (D-20): sc-46089. Western blot analysis of Deltex-1 expression in SJRH30 (**A**), K-562 (**B**) and Hs 294T (**C**) whole cell lysates.



Deltex-1 (D-20): sc-46089. Immunoperoxidase staining of formalin fixed, paraffin-embedded human hippocampus tissue showing nuclear staining of subset of neuronal cells and subset of glial cells.

STORAGE

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