

Delta-4 (G-12): sc-365429

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 Jagged1, Jagged2 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.

SOURCE

Delta-4 (G-12) is a mouse monoclonal 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_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Delta-4 (G-12) is available conjugated to agarose (sc-365429 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-365429 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365429 PE), fluorescein (sc-365429 FITC), Alexa Fluor® 488 (sc-365429 AF488), Alexa Fluor® 546 (sc-365429 AF546), Alexa Fluor® 594 (sc-365429 AF594) or Alexa Fluor® 647 (sc-365429 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365429 AF680) or Alexa Fluor® 790 (sc-365429 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

APPLICATIONS

Delta-4 (G-12) is recommended for detection of precursor and mature Delta-4 of human origin by Western Blotting (starting dilution 1:100, 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).

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

Molecular Weight of Delta-4: 75 kDa.

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

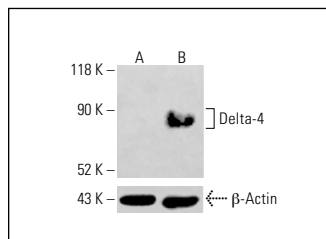
RESEARCH USE

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

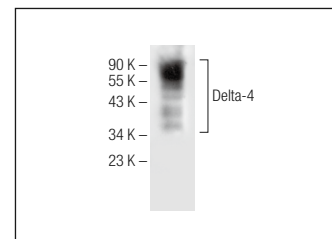
STORAGE

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

DATA



Delta-4 (G-12): sc-365429. Western blot analysis of Delta-4 expression in untreated (A) and chemically-treated (B) K-562 whole cell lysates. β-Actin (C4): sc-47778 used as loading control. Detection reagent used: m-IgG Fc BP-HRP: sc-525409.



Delta-4 (G-12): sc-365429. Western blot analysis of Delta-4 expression in K-562 whole cell lysate.

SELECT PRODUCT CITATIONS

- Konen, J., et al. 2017. Image-guided genomics of phenotypically heterogeneous populations reveals vascular signalling during symbiotic collective cancer invasion. *Nat. Commun.* 8: 15078.
- Zhang, H., et al. 2021. NOTCH pathway activation in infantile hemangiomas. *J. Vasc. Surg. Venous Lymphat. Disord.* 9: 489-496.
- Xia, S., et al. 2021. Delta-like 4 is required for pulmonary vascular arborization and alveolarization in the developing lung. *JCI Insight* 6: e134170.
- Zisis, T., et al. 2021. Sequential and switchable patterning for studying cellular processes under spatiotemporal control. *ACS Appl. Mater. Interfaces* 13: 35545-35560.
- Gao, N., et al. 2022. Preliminary research of main components of Dll4/Notch-VEGF signaling pathway under high-glucose stimulation *in vitro*. *Diabetes Metab. Syndr. Obes.* 15: 1165-1171.
- Wang, L., et al. 2023. Expressions and prognostic values of Notch3 and DLL4 in human breast cancer. *Technol. Cancer Res. Treat.* 22: 1533033822118984.
- Huang, L., et al. 2023. GNAQ R183Q somatic mutation contributes to aberrant arteriovenous specification in Sturge-Weber syndrome through Notch signaling. *FASEB J.* 37: e23148.
- Ren, J.S., et al. 2023. Hypoxia-induced AFAP1L1 regulates pathological neovascularization via the YAP-DLL4-NOTCH axis. *J. Transl. Med.* 21: 651.

PROTOCOLS

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