

DLG5 (E-11): sc-374493

BACKGROUND

Membrane-associated guanylate kinase (MAGUK) family members function as molecular scaffolds for the assembly of multiprotein complexes localizing to the plasma membrane. Several mammalian proteins related to the *Drosophila* tumor suppressor discs-large (dlg) gene product belong to the MAGUK family. MAGUK family members include the postsynaptic proteins PSD-93, DLG5, Pals1, PSD-95 (SAP 90), densin-180, NE-dlg (SAP 120), dlg-1 (SAP 97), GKAP (GK-associated protein), p55, the tight junction associated proteins ZO1-3 and the caspase-associated recruitment domain (CARD) proteins CARD6, CARD8-12 and CARD14. DLG5, a cell-cell junction peripheral membrane protein, plays an important role in maintaining the structure of epithelial cell plasma membranes. It also plays an important part in transmitting extracellular signals to the cytoskeleton and the membrane. DLG5 which can interact with MPP1 and CTNNB1, is primarily expressed in prostate and placenta.

REFERENCES

1. Nakamura, H., et al. 1998. Identification of a novel human homolog of the *Drosophila* dlg, P-dlg, specifically expressed in the gland tissues and interacting with p55. FEBS Lett. 433: 63-67.
2. Shah, G., et al. 2002. The cloning, genomic organization and tissue expression profile of the human DLG5 gene. BMC Genomics 3: 6.
3. Wakabayashi, M., et al. 2003. Interaction of Ip-dlg/KIAA0583, a membrane-associated guanylate kinase family protein, with vinexin and β -catenin at sites of cell-cell contact. J. Biol. Chem. 278: 21709-21714.
4. Stoll, M., et al. 2004. Genetic variation in DLG5 is associated with inflammatory bowel disease. Nat. Genet. 36: 476-480.
5. Yamazaki, K., et al. 2004. Association analysis of SLC22A4, SLC22A5 and DLG5 in Japanese patients with Crohn disease. J. Hum. Genet. 49: 664-668.

CHROMOSOMAL LOCATION

Genetic locus: DLG5 (human) mapping to 10q22.3; Dlg5 (mouse) mapping to 14 A3.

SOURCE

DLG5 (E-11) is a mouse monoclonal antibody raised against amino acids 355-654 mapping within an internal region of DLG5 of human origin.

PRODUCT

Each vial contains 200 μ g IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

DLG5 (E-11) is available conjugated to agarose (sc-374493 AC), 500 μ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-374493 HRP), 200 μ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-374493 PE), fluorescein (sc-374493 FITC), Alexa Fluor® 488 (sc-374493 AF488), Alexa Fluor® 546 (sc-374493 AF546), Alexa Fluor® 594 (sc-374493 AF594) or Alexa Fluor® 647 (sc-374493 AF647), 200 μ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-374493 AF680) or Alexa Fluor® 790 (sc-374493 AF790), 200 μ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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APPLICATIONS

DLG5 (E-11) is recommended for detection of DLG5 isoforms 1, 2 and 4 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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 DLG5 siRNA (h): sc-60541, DLG5 siRNA (m): sc-60542, DLG5 shRNA Plasmid (h): sc-60541-SH, DLG5 shRNA Plasmid (m): sc-60542-SH, DLG5 shRNA (h) Lentiviral Particles: sc-60541-V and DLG5 shRNA (m) Lentiviral Particles: sc-60542-V.

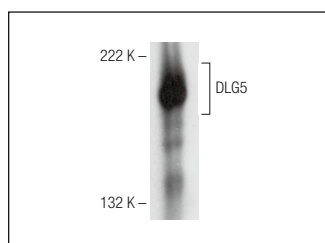
Molecular Weight of DLG5: 200 kDa.

Positive Controls: human placenta extract: sc-363772.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



DLG5 (E-11): sc-374493. Western blot analysis of DLG5 expression in human placenta tissue extract.

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 for detailed protocols and support products.