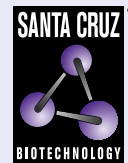


PSD-95 (6G6): sc-32291



The Power to Question

BACKGROUND

The *Drosophila* discs large (dlg) tumor suppressor gene was first identified in *Drosophila* through genetic analysis of germline mutations. Several mammalian homologs were subsequently identified and categorized into a protein family termed MAGUK (membrane-associated guanylate kinase homolog). Human homologs of dlg include hdlg-1 (rat SAP 97) and NE-dlg (neuronal and endocrine dlg). The rat synaptic protein PSD-95 (also designated SAP 90) also shares homology with these proteins. MAGUKs are localized at the membrane-cytoskeleton interface and contain several distinct domains which suggest a role for these proteins in intracellular signal transduction. Interaction of hdlg-1 and NE-dlg with the tumor suppressor protein APC suggest that MAGUK proteins may also play a role in regulation of growth.

CHROMOSOMAL LOCATION

Genetic locus: DLG4 (human) mapping to 17p13.1; Dlg4 (mouse) mapping to 11 B3.

SOURCE

PSD-95 (6G6) is a mouse monoclonal antibody raised against purified recombinant PSD-95 of rat 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.

APPLICATIONS

PSD-95 (6G6) is recommended for detection of PSD-95 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)] and immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500).

Suitable for use as control antibody for PSD-95 siRNA (h): sc-42010, PSD-95 siRNA (m): sc-42012, PSD-95 siRNA (r): sc-270159, PSD-95 shRNA Plasmid (h): sc-42010-SH, PSD-95 shRNA Plasmid (m): sc-42012-SH, PSD-95 shRNA Plasmid (r): sc-270159-SH, PSD-95 shRNA (h) Lentiviral Particles: sc-42010-V, PSD-95 shRNA (m) Lentiviral Particles: sc-42012-V and PSD-95 shRNA (r) Lentiviral Particles: sc-270159-V.

Molecular Weight of PSD-95: 95 kDa.

Positive Controls: rat brain extract: sc-2392, mouse cerebellum extract: sc-2403 or mouse brain extract: sc-2253.

STORAGE

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

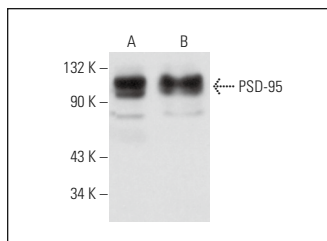
PROTOCOLS

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

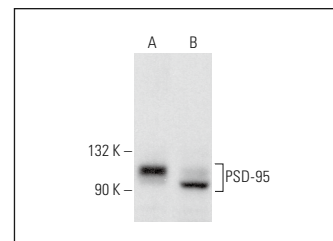
RESEARCH USE

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

DATA



PSD-95 (6G6): sc-32291. Western blot analysis of PSD-95 expression in mouse brain (A) and rat brain (B) tissue extracts.



PSD-95 (6G6): sc-32291. Western blot analysis of PSD-95 expression in rat brain (A) and mouse cerebellum (B) tissue extracts.

SELECT PRODUCT CITATIONS

- Kim, J.Y., et al. 2011. The RhoG/ELMO1/Dock180 signaling module is required for spine morphogenesis in hippocampal neurons. *J. Biol. Chem.* 286: 37615-37624.
- Harding, A.M., et al. 2014. ASIC2 subunits facilitate expression at the cell surface and confer regulation by PSD-95. *PLoS ONE* 9: e93797.
- Niu, Y., et al. 2017. Ablation of SNX6 leads to defects in synaptic function of CA1 pyramidal neurons and spatial memory. *Elife* 6: e20991.
- Wu, Q., et al. 2017. Postsynaptic density 95 (PSD-95) serine 561 phosphorylation regulates a conformational switch and bidirectional dendritic spine structural plasticity. *J. Biol. Chem.* 292: 16150-16160.
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- Casili, G., et al. 2022. Dimethyl fumarate (DMF) alleviated post-operative (PO) pain through the N-methyl-D-aspartate (NMDA) receptors. *Antioxidants* 11: 1774.
- Dias-Carvalho, A., et al. 2022. Chemobrain: mitoxantrone-induced oxidative stress, apoptotic and autophagic neuronal death in adult CD-1 mice. *Arch. Toxicol.* 96: 1767-1782.
- Li, J.B., et al. 2023. p85S6K sustains synaptic GluA1 to ameliorate cognitive deficits in Alzheimer's disease. *Transl. Neurodegener.* 12: 1.
- Tripson, M., et al. 2023. Cannabidiol inhibits neuroinflammatory responses and circuit-associated synaptic loss following damage to a songbird vocal pre-motor cortical-like region. *Sci. Rep.* 13: 7907.



See **PSD-95 (7E3): sc-32290** for PSD-95 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.