

PSD-95 (6D677): sc-71933

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 (6D677) 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 (6D677) 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: mouse cerebellum extract: sc-2403, rat cerebellum extract: sc-2398 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.

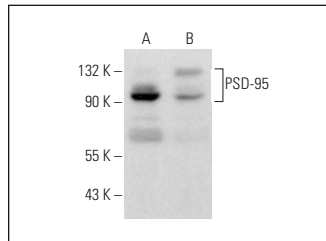
PROTOCOLS

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 (6D677): sc-71933. Western blot analysis of PSD-95 expression in mouse cerebellum (A) and rat cerebellum (B) tissue extracts.

SELECT PRODUCT CITATIONS

- Pavlopoulos, E., et al. 2011. Neuralized1 activates CPEB3: a function for nonproteolytic ubiquitin in synaptic plasticity and memory storage. *Cell* 147: 1369-1383.
- Chen, C., et al. 2016. Epigenetic modification of PKM ζ rescues aging-related cognitive impairment. *Sci. Rep.* 6: 22096.
- Yoon, G., et al. 2018. The adiponectin homolog osmotin enhances neurite outgrowth and synaptic complexity via AdipoR1/NgR1 signaling in Alzheimer's disease. *Mol. Neurobiol.* 55: 6673-6686.
- Khan, A., et al. 2018. Neuroprotective effect of Quercetin against the detrimental effects of LPS in the adult mouse brain. *Front. Pharmacol.* 9: 1383.
- Muhammad, T., et al. 2019. Hesperetin, a citrus flavonoid, attenuates LPS-induced neuroinflammation, apoptosis and memory impairments by modulating TLR4/NF κ B signaling. *Nutrients* 11: 648.
- Ikram, M., et al. 2019. Natural dietary supplementation of curcumin protects mice brains against ethanol-induced oxidative stress-mediated neurodegeneration and memory impairment via Nrf2/TLR4/RAGE signaling. *Nutrients* 11: 1082.
- Khan, A., et al. 2019. Caffeine modulates cadmium-induced oxidative stress, neuroinflammation, and cognitive impairments by regulating Nrf-2/HO-1 *in vivo* and *in vitro*. *J. Clin. Med.* 8: 680.
- Ikram, M., et al. 2019. Hesperetin confers neuroprotection by regulating Nrf2/TLR4/NF κ B signaling in an A β mouse model. *Mol. Neurobiol.* 56: 6293-6309.
- Khan, M., et al. 2019. MST1 regulates neuronal cell death via JNK/casp3 signaling pathway in HFD mouse brain and HT22 cells. *Int. J. Mol. Sci.* 20: 2504.

CONJUGATES

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.