

PSD-93 (L-20): sc-12234

BACKGROUND

The postsynaptic density protein (PSD)-93 and related membrane associated guanylate kinase (MAGUK) proteins assemble signal transduction complexes at sites of cell-cell contact including synapses. PSD-93 (also designated channel associated protein of synapse-110 or chapsyn-110) occurs only at postsynaptic sites in hippocampal neurons. PSD-95 and PSD-93 mediate ion channel clustering in heterologous cells and are believed to cluster and anchor NMDA receptors at the synapse. The glutamate receptor subunit, $\delta 2$, binds specifically to PSD-93, which is enriched in Purkinje neuron cell bodies and dendrites. In addition, PSD-93 clusters delta2 when they are coexpressed and they are colocalized at parallel fiber synapses.

REFERENCES

1. Brenman, J.E., et al. 1996. Cloning and characterization of postsynaptic density 93, a nitric oxide synthase interacting protein. *J. Neurosci.* 16: 7407-7415.
2. Fukaya, M., et al. 1999. Distinct spatiotemporal expression of mRNAs for the PSD-95/SAP90 protein family in the mouse brain. *Neurosci. Res.* 33: 111-118.
3. Roche, K.W., et al. 1999. Postsynaptic density-93 interacts with the $\delta 2$ glutamate receptor subunit at parallel fiber synapses. *J. Neurosci.* 19: 3926-3934.
4. El-Husseini, A.E., et al. 2000. Ion channel clustering by membrane associated guanylate kinases: differential regulation by N-terminal lipid and metal binding motifs. *J. Biol. Chem.* 275: 23904-23910.
5. Sans, N., et al. 2000. A developmental change in NMDA receptor-associated proteins at hippocampal synapses. *J. Neurosci.* 20: 1260-1271.

CHROMOSOMAL LOCATION

Genetic locus: DLG2 (human) mapping to 11q14.1; Dlg2 (mouse) mapping to 7 E1.

SOURCE

PSD-93 (L-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of PSD-93 of human origin.

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-12234 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

PSD-93 (L-20) is recommended for detection of PSD-93 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

PSD-93 (L-20) is also recommended for detection of PSD-93 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for PSD-93 siRNA (h): sc-36321, PSD-93 siRNA (m): sc-36322, PSD-93 shRNA Plasmid (h): sc-36321-SH, PSD-93 shRNA Plasmid (m): sc-36322-SH, PSD-93 shRNA (h) Lentiviral Particles: sc-36321-V and PSD-93 shRNA (m) Lentiviral Particles: sc-36322-V.

Molecular Weight of PSD-93: 117 kDa.

Positive Controls: SK-N-SH cell lysate: sc-2410, IMR-32 cell lysate: sc-2409 or HeLa whole cell lysate: sc-2200.

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) 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.

PROTOCOLS

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



Try **PSD-93 (A-6): sc-515252** or **PSD-93 (D-2): sc-515245**, our highly recommended monoclonal alternatives to PSD-93 (L-20).