

Anti-PSD95 (MOUSE) Monoclonal Antibody - 200-301-G32

Code: 200-301-G32

Size: 100 µg

Product Description: Anti-PSD95 (MOUSE) Monoclonal Antibody - 200-301-G32

Concentration: 1.0 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
Gene Name	Dlg4
Species Reactivity	Mouse, Rat, Bovine
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	50% (v/v) Glycerol
Storage Condition	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
Synonyms	DLG4, SAP90, Synapse-associated protein 90, Postsynaptic density protein 95, Disks large homolog 4
Application Note	Anti-PSD95 Antibody is suitable for WB and IF microscopy. Expect a band approximately ~100kDa protein corresponding to the molecular mass of PSD-95 on SDS PAGE immunoblots. An additional protein of >100kDa is also detected. Additional cross-reactive bands are detected at ~75kDa and 50kDa in rat and mouse samples. Specific conditions for reactivity should be optimized by the end user.
Background	<p>Postsynaptic Density protein 95 (PSD95), also known as Synapse associated protein 90kDa, is a member of the membrane-associated guanylate kinase (MAGUK) family of proteins. PSD95 is a scaffolding protein and is involved in the assembly and function of the postsynaptic density complex. These family members consist of an N-terminal variable segment followed by three amino-terminal PDZ domains, an upstream SH3 domain and an inactive carboxyl-terminal guanylate kinase (GK) domain. The first and second PDZ domain localize NMDA receptors and K⁺ channels to synapses, and the third binds to neuroligins which are neuronal cell adhesion molecules that interact with b-neurexins and form intercellular junctions. PSD-95 also binds to neuronal nitric oxide synthase, possibly through interactions between PDZ domains present on both proteins. Thus different PDZ domains of PSD-95 might be specialized for distinct functions.</p> <p>PSD95 participates in synaptic targeting of AMPA receptors through an indirect manner involving Stargazin and related transmembrane AMPA receptor regulatory proteins (TARPs). The protein is implicated in experience dependent plasticity and plays an indispensable role in learning. Mutations in PSD95 are associated with autism.</p>
Purity And Specificity	Anti-PSD95 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with PSD95 from mouse, rat, and bovine based on 100% homology with the immunizing sequence. Cross-reactivity with PSD95 from other sources has not been determined. Neuroscience, Organelle Marker research.
ELISA	1:250
Immunohistochemistry	User Optimized
WESTERN BLOT	1:250
IHC	User Optimized
IFMICROSCOPY	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	PSD95 Antibody was produced in mice by repeated immunizations raised against recombinant rat PSD-95.
General Reference	<ol style="list-style-type: none"> Chetkovich D.M., Bunn R.C., Kuo S.H., Kawasaki Y., Kohwi M., and Bredt D.S. (2002) J Neurosci. 22(15): 6415-25. Cao J., Viholainen J.I., Dart C., Warwick H.K., Levland M.L. and Courtney M.J. (2005) J Cell Biol. 168(1): 117-26. Kennedy M. (1997) Trends in Neurosci. 6: 264-268. Irie M. et al. (1997) Science 277(5331): 1511-5. Cai C. et al. (2006) J Biol Chem. 281: 4267-73. Yao W.D. et al. (2004) Neuron 41: 625-38. Cline H. (2005) Curr Biol. 15: R203-5.

Related Products

600-401-273	Anti-KB-RAS (RABBIT) Antibody - 600-401-273
600-401-940	Anti-Lysine Methylated (MeK) (RABBIT) Antibody - 600-401-940
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
BSA-30	BOVINE SERUM ALBUMIN 30% Solution - BSA-30

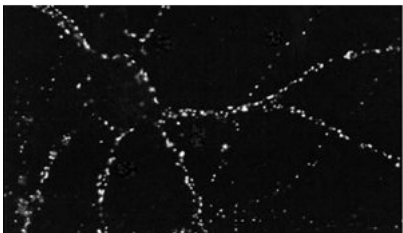
Related Links

NCBI - NP_001122299.1	http://www.ncbi.nlm.nih.gov/protein/NP_001122299.1
GeneID - 1742	http://www.ncbi.nlm.nih.gov/sites/entrez?db=gene&term=1742
UniProtKB - P78352	http://www.uniprot.org/uniprot/P78352

Images

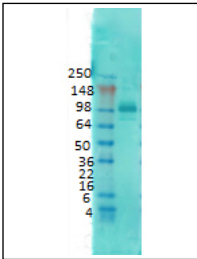
- 1

Immunocytochemistry of Mouse anti-PSD95 antibody. Tissue: Culutres of dissociated hippocampal neurons.Fixation: N/AAntigen retrieval: not required.Primary antibody: PSD95 antibody at 10 ug/mL for 1h at RT.Secondary antibody: Fluorescein mouse secondary antibody at 1:10,000 for 45 min at RT.Localization: PSD95 is cell membrane and cell junctions.Staining: PSD95 as precipitated white signal.



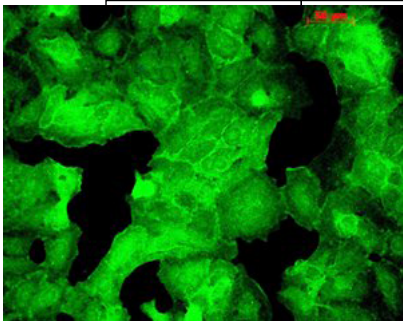
- 2

Western Blot of mouse anti-PSD95 total antibody. Lane 1: Rat Membrane. Primary antibody: PSD95 total antibody at 1:1000 for overnight at 4°C.Secondary antibody: Goat anti-mouse IgG HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% Blotto overnight 4°C. Predicted/Observed size: 80.4 kDa/100kD. Other band(s): An additional protein of >100kDa is also detected. Additional cross-reactive bands are detected at ~75kDa and 50kDa in rat and mouse samples.



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Immunofluorescence of mouse anti-PSD95 antibody. Tissue: HaCat cells. Antigen retrieval: not required. Primary Antibody: PSD95 at 1ug/ml for 1h at RT. Secondary antibody: Anti-Mouse secondary at 1:10,000 for 45 min at RT. Localization: Cell Membrane and cell Junctions. Staining: PSD95 as green fluorescent signal.



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