

Rabbit PSD95 Polyclonal Antibody | anti-PSD95 antibody

PSD95 Antibody

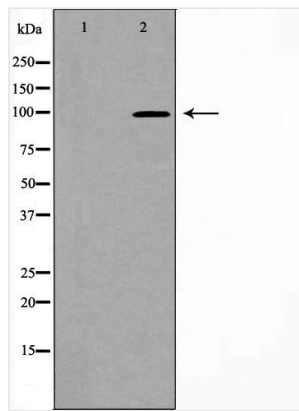
CATALOG # AAA321939	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS ELISA, Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

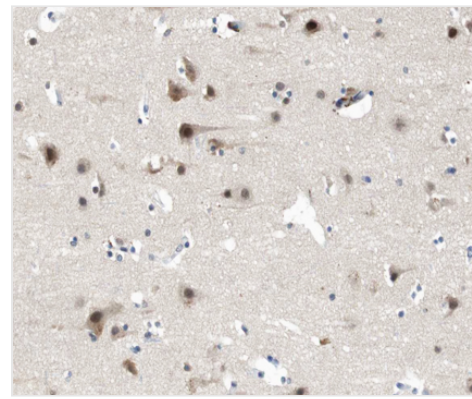
PSD95; Polyclonal Antibody; PSD95 Antibody; Discs large homolog 4; Disks large homolog 4; DLG 4; Dlg4; DLG4_HUMAN; FLJ97752; FLJ98574; Human post synaptic density protein 95; Post synaptic density protein 95; Postsynaptic density protein 95; PSD 95; PSD-95; SAP 90; SAP-90; SAP90; Synapse associated protein 90; Synapse-associated protein 90; Tax interaction protein 15; anti-PSD95 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	PSD95 antibody detects endogenous levels of total PSD95
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	721
Applicable Applications for anti-PSD95 antibody	ELISA, IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human PSD95
Subcellular Location	Cell Membrane. Cell Junction, Synapse, Postsynaptic Cell Membrane, Postsynaptic Density. Cell Projection, Axon. Cell Junction, Synapse. High levels in postsynaptic density of neurons in the forebrain. Also in presynaptic region of inhibitory synapses formed by cerebellar basket cells on axon hillocks of purkinje cells.
Tissue Specificity	Brain.
Predicted Cross Reactivity	Zebrafish, Bovine, Horse, Sheep, Rabbit
Similarity	Zebrafish (80%), Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

**WB (Western Blot)**

Western blot analysis of PSD95 expression in Brain (Rat) Tissue Lysate, The lane on the left is treated with the antigen-specific peptide.

**IHC (Immunohistochemistry)**

AAA321939 at 1/200 staining human brain tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION**Related Product Information for anti-PSD95 antibody**

Function: Interacts with the cytoplasmic tail of NMDA receptor subunits and shaker-type potassium channels. Required for synaptic plasticity associated with NMDA receptor signaling. Overexpression or depletion of DLG4 changes the ratio of excitatory to inhibitory synapses in hippocampal neurons. May reduce the amplitude of ASIC3 acid-evoked currents by retaining the channel intracellularly. May regulate the intracellular trafficking of ADR1B. Also regulates AMPA-type glutamate receptor (AMPA) immobilization at postsynaptic density keeping the channels in an activated state in the presence of glutamate and preventing synaptic depression.

Subunit Structure: Interacts through its PDZ domains with ANO2 and NETO1 (By similarity). Interacts through its first two PDZ domains with GRIN2A, GRIN2B, GRIN2C, GRIN2D (By similarity). Interacts with ASIC3 (By similarity). Interacts with SEMA4C (By similarity). Interacts with CXADR (By similarity). Interacts with KCND2 (By similarity). Interacts with SYNGAP1 (By similarity). Interacts with LRRC4 and LRRC4B (By similarity). Interacts with ERBB4 (PubMed:10725395). Interacts with KCNA1, KCNA2, KCNA3 and KCNA4 (PubMed:7477295). Interacts through its first PDZ domain with GRIK2, KCNA4 and CRIPT (PubMed:11744724). Interacts through its second PDZ domain with the PDZ domain of NOS1 or the C-terminus of CAPON (By similarity). Interacts through its third PDZ domain with NLGN1 and CRIPT, and probably with NLGN2 and NLGN3 (PubMed:9278515). Interacts through its guanylate kinase-like domain with KIF13B (PubMed:10859302). Interacts through its guanylate kinase-like domain with DLGAP1/GKAP, DLGAP2, DLGAP3, DLGAP4, MAP1A, BEGAIN and SIPA1L1 (By similarity). Isoform 2 interacts through an L27 domain with HGS/HRS and the first L27 domain of CASK (PubMed:12151521). Interacts with ADR1B and ANKS1B (By similarity). May interact with HTR2A (By similarity). Interacts with ADAM22, KLHL17 and LGI1 (By similarity). Interacts with FRMPD4 (via C-terminus) (PubMed:19118189). Interacts with LRFN1, LRFN2 and LRFN4 (PubMed:16630835). Interacts (via N-terminal tandem pair of PDZ domains) with GPER1 (via C-terminus tail motif); the interaction is direct and induces the increase of GPER1 protein levels residing at the plasma membrane surface in a estradiol-independent manner (By similarity). Interacts (via N-terminus tandem pair of PDZ domains) with NOS1 (via N-terminal domain) (By similarity). Interacts with SHANK3 (By similarity). Interacts with KCNJ4 (By similarity). Interacts with GPR85 (PubMed:25780553). Interacts with CACNG2 and MPP2 (via the SH3-Guanylate kinase-like sub-module) (By similarity). Interacts with ADGRB1 (PubMed:23782696). Found in a complex with PRR7 and GRIN1 (By similarity). Interacts (via PDZ3 domain and to lesser degree via PDZ2 domain) with PRR7 (By similarity). Component of the postsynaptic hippocampal AMPA-type glutamate receptor (AMPA) complex, at least composed of pore forming AMPAR subunits GRIA1, GRIA2 and GRIA3 and AMPAR auxiliary proteins SHISA6 and SHISA7. Interacts (via its first two PDZ domains) with SHISA6 and SHISA7 (via PDZ-binding motif); the interaction is direct (By similarity).

Post-translational Modifications: Palmitoylated (PubMed:26701913). Palmitoylation is required for targeting to postsynaptic density, plasma membrane and synapses (By similarity). Palmitoylation may play a role in glutamate receptor GRIA1 synapse clustering (By similarity). Depalmitoylated by ABHD17A and ABHD17B and to a lesser extent by ABHD17C, ABHD12, ABHD13, LYPLA1 and LYPLA2 (PubMed:26701913). Undergoes rapid synaptic palmitoylation/depalmitoylation cycles during neuronal development which slow down in mature neurons (By similarity). Ubiquitinated by MDM2 in response to NMDA receptor activation, leading to proteasome-mediated degradation of DLG4 which is required for AMPA receptor endocytosis.

Similarity: The PDZ domain 3 mediates interaction with ADR1B. The L27 domain near the N-terminus of isoform 2 is required for HGS/HRS-dependent targeting to postsynaptic density. Belongs to the MAGUK family.

References	Wei Zhou, Lirong Chang, Yuan Fang, Zunshu Du, Yan Li, Yizhi Song, Fei Hao, Liying Lv, Yan Wu; Journal: NEUROSCI LETT. Cerebral dopamine neurotrophic factor alleviates A β 25-35-induced endoplasmic reticulum stress and early synaptotoxicity in rat hippocampal cells.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	192447426
NCBI GeneID	1742
NCBI Accession #	NP_001122299.1
NCBI GenBank Nucleotide #	NM_001128827.2
UniProt Accession #	P78352; Q92941; Q9UKK8; B7Z1S1; G5E939
Molecular Weight	Observed: 105 kDa Predicted: 81 kDa
NCBI Official Full Name	disks large homolog 4 isoform 2
NCBI Official Synonym Full Names	discs large MAGUK scaffold protein 4
NCBI Official Symbol	DLG4
NCBI Official Synonym Symbols	PSD95; SAP90; SAP-90
NCBI Protein Information	disks large homolog 4
UniProt Protein Name	Disks large homolog 4
UniProt Gene Name	DLG4
UniProt Synonym Gene Names	PSD95; PSD-95; SAP-90; SAP90

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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 Online datasheet: <https://stage.aaabiotech.com/polyclonal/psd95-antibody-immunohistochemistry-western-blot-elisa/321939>