

PSD95 Rabbit pAb

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Catalog # AP52233

Product Information

Application	WB
Primary Accession	P78352
Reactivity	Rat, Mouse
Predicted	Pig, Dog, Human, Rabbit, Horse, Sheep
Host	Rabbit
Clonality	Polyclonal
Calculated MW	80495
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human PSD95
Epitope Specificity	468-560/724
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Cell membrane; Peripheral membrane protein. Cell junction, synapse, postsynaptic cell membrane, postsynaptic density. Cell junction, synapse. Cell junction, synapse, synaptosome. Note=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.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the membrane-associated guanylate kinase (MAGUK) family. It heteromultimerizes with another MAGUK protein, DLG2, and is recruited into NMDA receptor and potassium channel clusters. These two MAGUK proteins may interact at postsynaptic sites to form a multimeric scaffold for the clustering of receptors, ion channels, and associated signaling proteins. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jul 2008]

Additional Information

Gene ID	1742
Other Names	Disks large homolog 4, Postsynaptic density protein 95, PSD-95, Synapse-associated protein 90, SAP-90, SAP90, DLG4 (HGNC:2903), PSD95
Dilution	WB=1:500-2000
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	DLG4 (HGNC:2903)
Synonyms	PSD95
Function	Postsynaptic scaffolding protein that plays a critical role in synaptogenesis and synaptic plasticity by providing a platform for the postsynaptic clustering of crucial synaptic proteins. 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 (By similarity). Under basal conditions, cooperates with FYN to stabilize palmitoyltransferase ZDHHC5 at the synaptic membrane through FYN-mediated phosphorylation of ZDHHC5 and its subsequent inhibition of association with endocytic proteins (PubMed: 26334723).
Cellular Location	Cell membrane; Lipid-anchor; Cytoplasmic side. Postsynaptic density {ECO:0000250 UniProtKB:P31016}. Synapse Cytoplasm {ECO:0000250 UniProtKB:P31016}. Cell projection, axon {ECO:0000250 UniProtKB:P31016}. Cell projection, dendritic spine {ECO:0000250 UniProtKB:P31016}. Cell projection, dendrite {ECO:0000250 UniProtKB:P31016}. Presynapse {ECO:0000250 UniProtKB:P31016}. Note=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. Suppression of neuronal activity induces synaptic accumulation and clustering of DLG4. {ECO:0000250 UniProtKB:P31016}
Tissue Location	Brain.

Background

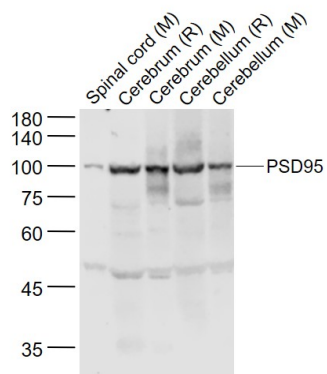
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References

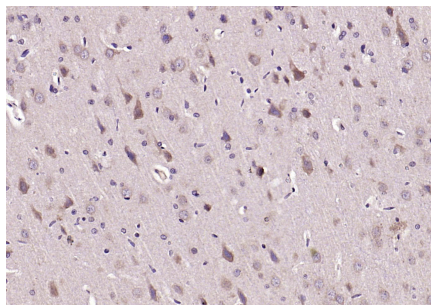
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Ota T.,et al.Nat. Genet. 36:40-45(2004).
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Images

Sample:
Lane 1: Spinal cord (Mouse) Lysate at 40 ug



Lane 2: Cerebrum (Rat) Lysate at 40 ug
 Lane 3: Cerebrum (Mouse) Lysate at 40 ug
 Lane 4: Cerebellum (Rat) Lysate at 40 ug
 Lane 5: Cerebellum (Mouse) Lysate at 40 ug
 Primary: Anti-PSD95 (AP52233) at 1/1000 dilution
 Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
 Predicted band size: 80 kD
 Observed band size: 95 kD



Paraformaldehyde-fixed, paraffin embedded Rat Cerebrum; Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15 min; Antibody incubation with PSD95 Polyclonal Antibody, Unconjugated (AP52233) at 1:200 overnight at 4°C, followed by conjugation to the AP52233-HRP and DAB (C-0010) staining.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.