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PSD95 Antibody

Rabbit mAb
Catalog # AP90438

Product Information

Application	WB, IHC, IF, FC, ICC, IP, IHF
Primary Accession	P78352
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Other Names	DLG4; Disks large homolog 4; PSD95; SAP90; Synapse associated protein 90;
Isotype	Rabbit IgG
Host	Rabbit
Calculated MW	80495

Additional Information

Dilution	WB 1:500~1:2000 IHC 1:50~1:200 ICC/IF 1:50~1:200 IP 1:20 FC 1:20
Purification	Affinity-chromatography
Immunogen	A synthesized peptide derived from human PSD95
Description	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.
Storage Condition and Buffer	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

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 (AMPAR) 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).

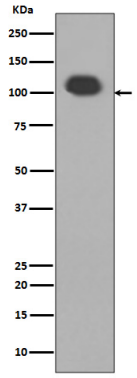
Cellular Location

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.

Images



Western blot analysis of PSD95 expression in Mouse brain tissue lysate.

Image not found : 202311/AP90438-IF.jpg

Immunofluorescent analysis of U87-MG cells, using PSD95 Antibody .

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