10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

DLG4 antibody - middle region

Rabbit Polyclonal Antibody
Catalog # AI13277

Product Information

Application	WB
Primary Accession	P78352
Other Accession	NM_001365, NP_001356
Reactivity	Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Guinea Pig, Horse, Bovine
Predicted	Human, Mouse, Rat, Rabbit, Zebrafish, Dog, Guinea Pig, Horse, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	80495

Additional Information

Gene ID	1742
Alias Symbol	PSD95, SAP90, SAP-90
Other Names	Disks large homolog 4, Postsynaptic density protein 95, PSD-95, Synapse-associated protein 90, SAP-90, SAP90, DLG4, PSD95
Format	Liquid. Purified antibody supplied in 1x PBS buffer with 0.09% (w/v) sodium azide and 2% sucrose.
Reconstitution & Storage	Add 50 ul of distilled water. Final anti-DLG4 antibody concentration is 1 mg/ml in PBS buffer with 2% sucrose. For longer periods of storage, store at 20°C. Avoid repeat freeze-thaw cycles.
Precautions	DLG4 antibody - middle region is for research use only and not for use in diagnostic or therapeutic procedures.

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}

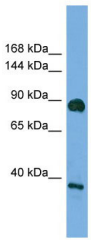
Tissue Location

Brain.

References

Stathakis D.G.,et al.Genomics 44:71-82(1997).
Stathakis D.G.,et al.Submitted (JUL-1998) to the EMBL/GenBank/DDBJ databases.
Stathakis D.G.,et al.J. Neurochem. 73:2250-2265(1999).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Zody M.C.,et al.Nature 440:1045-1049(2006).

Images



WB Suggested Anti-DLG4 Antibody Titration: 0.2-1 µg/ml
ELISA Titer: 1:1562500
Positive Control: HT1080 cell lysate

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