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DLG4 Antibody (C-erm)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP21835a

Specification

DLG4 Antibody (C-erm) - Product Information

Application	**WB,E**
Primary Accession	P78352
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**polyclonal**
Isotype	**Rabbit IgG**
Calculated MW	**80495**

DLG4 Antibody (C-erm) - 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, PSD95

Target/Specificity
This DLG4 antibody is generated from a rabbit immunized with a KLH conjugated synthetic peptide between 548-579 amino acids from human DLG4.

Dilution
WB~~1:2000

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
DLG4 Antibody (C-erm) is for research use only and not for use in diagnostic or therapeutic procedures.

DLG4 Antibody (C-erm) - 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.

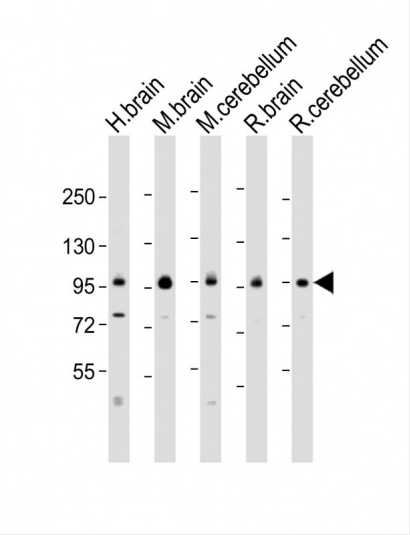
DLG4 Antibody (C-erm) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

DLG4 Antibody (C-erm) - Images

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All lanes : Anti-DLG4 Antibody (C-erm) at 1:2000 dilution Lane 1: human brain lysate Lane 2: mouse brain lysate Lane 3: mouse cerebellum lysate Lane 4: rat brain lysate Lane 5: rat cerebellum lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 80 kDa Blocking/Dilution buffer: 5% NFDM/TBST.

DLG4 Antibody (C-erm) - Background

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 (By similarity).

DLG4 Antibody (C-erm) - References

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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).