

**DLG4 Antibody (C-erm)**  
**Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP21835a**

**Specification**

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**DLG4 Antibody (C-erm) - Product Information**

Application	WB,E
Primary Accession	<a href="#">P78352</a>
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

E~~Use at an assay dependent concentration.

**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 (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**

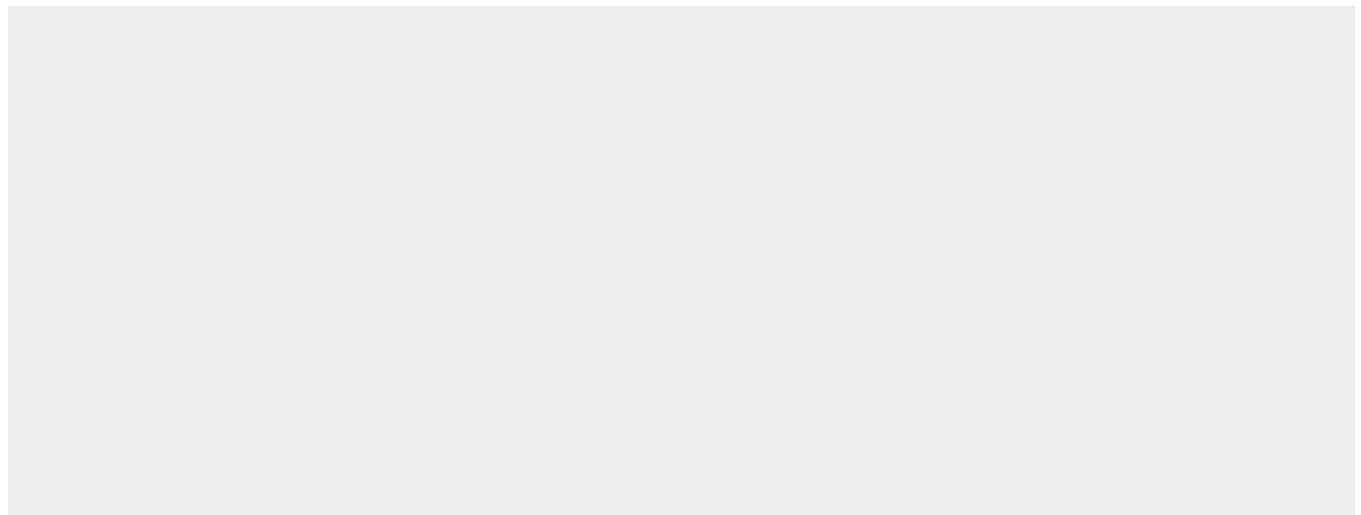
Brain.

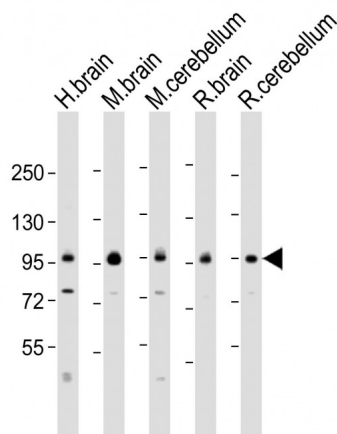
### **DLG4 Antibody (C-erm) - Protocols**

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### **DLG4 Antibody (C-erm) - Images**





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).