10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.622.0609

DLG4 Blocking Peptide (C-erm)

Synthetic peptide
Catalog # BP21835a

Specification

DLG4 Blocking Peptide (C-erm) - Product Information

Primary Accession P78352

DLG4 Blocking Peptide (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
The synthetic peptide sequence is selected from aa 568-579 of HUMAN DLG4

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

DLG4 Blocking Peptide (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

DLG4 Blocking Peptide (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 Blocking Peptide (C-erm) - 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).

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.

Cellular Location
Cell membrane; Lipid-anchor; Cytoplasmic side. Cell junction, synapse, postsynaptic density {ECO:0000250|UniProtKB:P31016}. Cell junction, 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}. Cell junction, synapse, 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 Blocking Peptide (C-erm) - Protocols

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

- Blocking Peptides