

Datasheet for ABIN7043104
anti-DLG4 antibody (Intracellular)



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2 Images

Overview

Quantity:	25 µL
Target:	DLG4
Binding Specificity:	AA 505-518, Intracellular
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This DLG4 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF)

Product Details

Purpose:	A Rabbit Polyclonal Antibody to PSD-95
Immunogen:	Immunogen: Synthetic peptide Immunogen Sequence: (C)KDWGSSSGSQGRED, corresponding to amino acid residues 505-518 of human PSD-95
Isotype:	IgG
Specificity:	Intracellular, between the SH3 and the GK-like domains.
Cross-Reactivity:	Human, Mouse, Rat
Predicted Reactivity:	Rat,mouse - identical
Characteristics:	Anti- Antibody is directed against an epitope human . Anti- Antibody (ABIN7043104, ABIN7045148 and ABIN7045149) can be used in western blot and immunohistochemistry

Product Details

applications. It has been designed to recognize from mouse, rat and human samples.

Purification: Affinity purified on immobilized antigen.

Target Details

Target: DLG4

Alternative Name: DLG4 ([DLG4 Products](#))

Background: Postsynaptic density protein 95, Discs large homolog 4, DLG4, Synapse-associated protein 90, SAP-90, Tax interaction protein 15, The postsynaptic density (PSD) is a membrane-associated protein specialized in postsynaptic signal transduction and processing. There are four PSD family members classified according to their molecular weight, including, PSD-95, PSD-93, synaptic associated proteins 97 kDa and 102 kDa. PSD-95 interacts with both ionotropic and metabotropic glutamate receptors via protein-protein interactions and plays a role in their precise assembly and spatial organization as well as coupling of these receptors to downstream signaling events¹. PSD-95 contains a SH3 domain, a GK domain and three PDZ domains. The PDZ domains 1 and 2 of PSD-95 are separated by only a few residues, creating a rigid bond that may restrain interdomain flexibility. These two PDZ domains can have distinct or overlapping target-binding proteins. In contrast, PDZ3 of PSD-95 is located at the carboxyl terminal end of the protein and has a set of interacting proteins that are distinct from PDZ domains 1 and 2. The N-palmitoylation of PSD-95 at Cys-3 and Cys-5 residues is essential for enhanced synaptic responses and the trafficking of PSD-95 to the plasma membrane². With its numerous domains, PSD-95 is often referred to as a scaffold protein, which localizes and traffics various receptors, cell adhesion molecules, ion channels, kinases and phosphatases to the synaptic membrane. PSD-95 also interacts with a variety of adaptor and cytoskeleton proteins, molecular motors, as well as protein synthesis machinery³. PSD-95 is found at the postsynaptic membrane of excitatory synapses⁴. PSD-95 null mice have severe learning defects and exhibit both facilitation of long-term potentiation and disruption of long-term depression⁵.

Alternative names: PSD-95, Postsynaptic density protein 95, Discs large homolog 4, DLG4, Synapse-associated protein 90, SAP-90, Tax interaction protein 15

Gene ID: 1742

NCBI Accession: [NM_001365](#)

UniProt: [P78352](#)

Pathways: [Regulation of Muscle Cell Differentiation](#), [Synaptic Membrane](#), [Skeletal Muscle Fiber](#)

Target Details

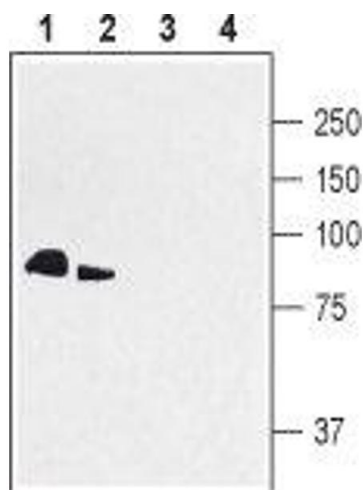
Development, Asymmetric Protein Localization, Regulation of long-term Neuronal Synaptic Plasticity

Application Details

Application Notes:	Antigen preadsorption control: 1 µg peptide per 1 µg antibody Application Dilutions Immunohistochemistry paraffin embedded sections ihc: 1:400 Application Dilutions Western blot wb: 1:200
Comment:	Cited Application: ICC Negative Control: (ABIN7235231) Blocking Peptide: (ABIN7235231)
Restrictions:	For Research Use only

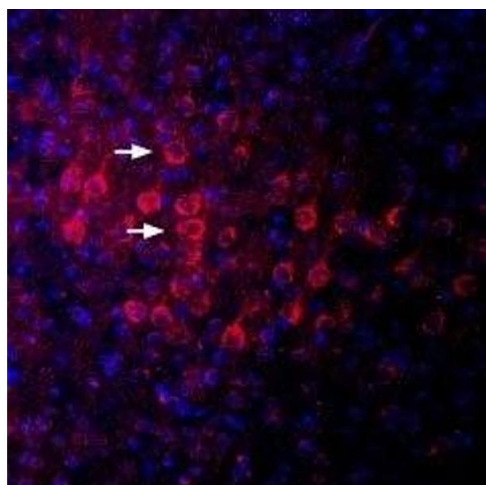
Handling

Format:	Lyophilized
Reconstitution:	Reconstitute with double distilled water (DDW) to a concentration of 1.0 mg/mL.
Concentration:	1 mg/mL
Buffer:	PBS pH 7.4
Storage:	4 °C,-20 °C
Storage Comment:	Storage before reconstitution: The antibody ships as a lyophilized powder at room temperature. Upon arrival, it should be stored at -20°C. Storage after reconstitution: The reconstituted solution can be stored at 4°C for up to 1 week. For longer periods, small aliquots should be stored at -20°C. Avoid multiple freezing and thawing. Centrifuge all antibody preparations before use (10000 x g 5 min).



Western Blotting

Image 1. Western blot analysis of rat brain synaptosomal fraction (lanes 1 and 3) and mouse brain lysate (lanes 2 and 4): - 1,2. Anti-PSD-95 Antibody (ABIN7043104, ABIN7045148 and ABIN7045149), (1:200).3,4. Anti-PSD-95 Antibody, preincubated with PSD-95 Blocking Peptide (#BLP-PZ009).



Immunohistochemistry

Image 2. Expression of PSD-95 in mouse parietal cortex - Immunohistochemical staining of perfusion-fixed frozen mouse brain sections using Anti-PSD-95 Antibody (ABIN7043104, ABIN7045148 and ABIN7045149), (1:400), followed by anti-rabbit-Cy3 antibody (red). Staining appears mainly in the pyramidal cell body (arrows). Nuclei were stained with DAPI (blue).