ARG20545
anti-PSD95 antibody [6G6]

Package: 50 µg
Store at: -20°C

Summary

Product Description	Mouse Monoclonal antibody [6G6] recognizes PSD95
Tested Reactivity	Hu, Ms, Rat, Bov
Tested Application	ICC/IF, IHC-P, WB
Specificity	Detects a ~100kDa protein corresponding to the molecular mass of PSD-95 on SDS PAGE immunoblots. An additional protein of >100kDa is also detected. Additional cross-reactive bands are detected at ~75kDa and 50kDa in rat and mouse samples.
Host	Mouse
Clonality	Monoclonal
Clone	6G6
Isotype	IgG2a
Target Name	PSD95
Species	Rat
Immunogen	Recombinant Rat PSD-95 (NP_062567.1)
Conjugation	Un-conjugated
Alternate Names	Postsynaptic density protein 95; SAP90; PSD-95; Synapse-associated protein 90; PSD95; SAP-90; Disks large homolog 4

Application Instructions

Application table

Application	Dilution
ICC/IF	1:100
IHC-P	1:100
WB	1:250

Application Note: * The dilutions indicate recommended starting dilutions and the optimal dilutions or concentrations should be determined by the scientist.

Properties

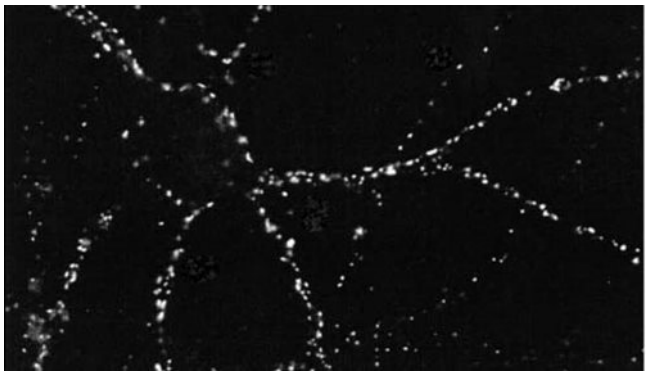
Form	Liquid
Purification	Purification with Protein G.
Buffer	PBS (pH 7.4), 50% Glycerol and 0.09% Sodium azide
Preservative	0.09% Sodium azide
Stabilizer	50% Glycerol
Concentration	1 mg/ml

Storage instruction	For continuous use, store undiluted antibody at 2-8°C for up to a week. For long-term storage, aliquot and store at -20°C. Storage in frost free freezers is not recommended. Avoid repeated freeze/thaw cycles. Suggest spin the vial prior to opening. The antibody solution should be gently mixed before use.
Note	For laboratory research only, not for drug, diagnostic or other use.

Bioinformation

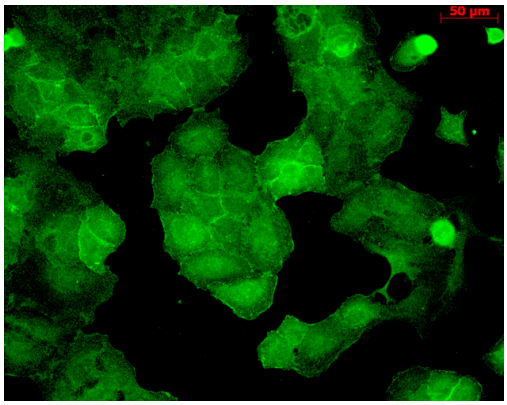
Gene Symbol	Dlg4
Gene Full Name	discs, large homolog 4 (Drosophila)
Background	Postsynaptic Density protein 95 (PSD95), also known as Synapse associated protein 90kDa, is a member of the membrane-associated guanylate kinase (MAGUK) family of proteins. PSD95 is a scaffolding protein and is involved in the assembly and function of the postsynaptic density complex. These family members consist of an N-terminal variable segment followed by three amino-terminal PDZ domains, an upstream SH3 domain and an inactive carboxyl-terminal guanylate kinase (GK) domain. The first and second PDZ domain localize NMDA receptors and K+ channels to synapses, and the third binds to neuroligins which are neuronal cell adhesion molecules that interact with b-neurexins and form intercellular junctions. PSD-95 also binds to neuronal nitric oxide synthase, possibly through interactions between PDZ domains present on both proteins. Thus different PDZ domains of PSD-95 might be specialized for distinct functions. PSD95 participates in synaptic targeting of AMPA receptors through an indirect manner involving Stargazin and related transmembrane AMPA receptor regulatory proteins (TARPs). The protein is implicated in experience dependent plasticity and plays an indispensable role in learning. Mutations in PSD95 are associated with autism.
Function	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. [UniProt]
Highlight	Related products: PSD95 antibodies; Anti-Mouse IgG secondary antibodies; Related news: Neuronal Development Marker Viral-like capsids, new trans-synaptic mRNA transport mechanism
Research Area	Neuroscience antibody
Calculated Mw	80 kDa
PTM	Palmitoylation of isoform 1 is required for targeting to postsynaptic density.
Cellular Localization	Cell Membrane, Cell Junction, Synapse

Images



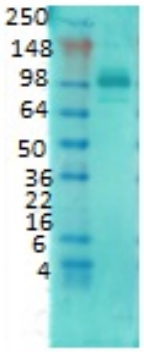
ARG20545 anti-PSD95 antibody [6G6] ICC/IF image

Immunocytochemistry: Rat dissociated hippocampal neurons fixed by cold 4% paraformaldehyde/0.2% glutaraldehyde in 0.1M Sodium phosphate buffer. Sample was stained with ARG20545 anti-PSD95 antibody [6G6] at 1:1000 dilution for 12 hours at 4°C.



ARG20545 anti-PSD95 antibody [6G6] ICC/IF image

Immunofluorescence: HaCaT cells. Fixation: Cold 100% methanol for 10 min at -20°C. Primary Antibody: ARG20545 anti-PSD95 antibody [6G6] at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat anti-Mouse (green) at 1:50 for 1 hour at RT.



ARG20545 anti-PSD95 antibody [6G6] WB image

Western blot: Rat membrane stained with ARG20545 anti-PSD95 antibody [6G6] at 1:1000 dilution.