

**Datasheet for 200-301-G32****PSD95 Antibody****Overview**

<b>Description:</b>	Anti-PSD95 (MOUSE) Monoclonal Antibody - 200-301-G32
<b>Item No.:</b>	200-301-G32
<b>Size:</b>	100 µg
<b>Applications:</b>	IF, IHC, WB
<b>Reactivity:</b>	Mouse, Rat, Bovine
<b>Host Species:</b>	Mouse

**Product Details**

**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<sup>+</sup> 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.

<b>Synonyms:</b>	DLG4, SAP90, Synapse-associated protein 90, Postsynaptic density protein 95, Disks large homolog 4
<b>Host Species:</b>	Mouse
<b>Clonality:</b>	Monoclonal
<b>Clone ID:</b>	6G6
<b>Format:</b>	IgG2a

## Target Details

<b>Gene Name:</b>	Dlg4
<b>Reactivity:</b>	Mouse, Rat, Bovine
<b>Immunogen Type:</b>	Recombinant Protein
<b>Immunogen:</b>	PSD95 Antibody was produced in mice by repeated immunizations raised against recombinant rat PSD-95.
<b>Purity/Specificity:</b>	Anti-PSD95 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with PSD95 from mouse, rat, and bovine based on 100% homology with the immunizing sequence. Cross-reactivity with PSD95 from other sources has not been determined. Neuroscience, Organelle Marker research.
<b>Relevant Links:</b>	<ul style="list-style-type: none"><li>• <a href="#">NCBI - NP_031890.1</a></li><li>• <a href="#">GeneID - 29495</a></li><li>• <a href="#">UniProtKB - P31016</a></li></ul>

## Application Details

<b>Tested Applications:</b>	IF, IHC, WB
<b>Application Note:</b>	Anti-PSD95 Antibody is tested for WB, IHC, and IF microscopy. Expect a band approximately ~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. Specific conditions for reactivity should be optimized by the end user.
<b>Assay Dilutions:</b>	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
<b>ELISA:</b>	1:250
<b>IF:</b>	User Optimized
<b>IHC:</b>	User Optimized
<b>WB:</b>	1:250

## Formulation

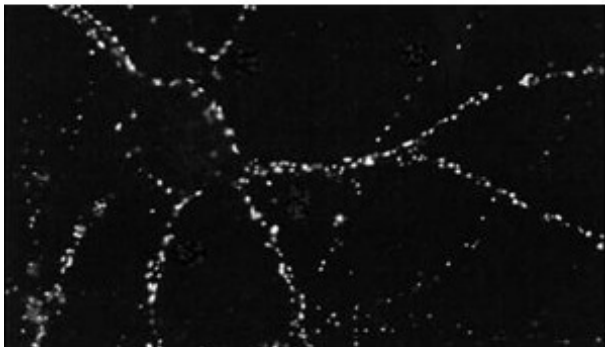
<b>Physical State:</b>	Liquid (sterile filtered)
<b>Concentration:</b>	1.0 mg/mL by UV absorbance at 280 nm

<b>Buffer:</b>	1X PBS, pH 7.4
<b>Preservative:</b>	0.09% (w/v) Sodium Azide
<b>Stabilizer:</b>	50% (v/v) Glycerol

## Shipping & Handling

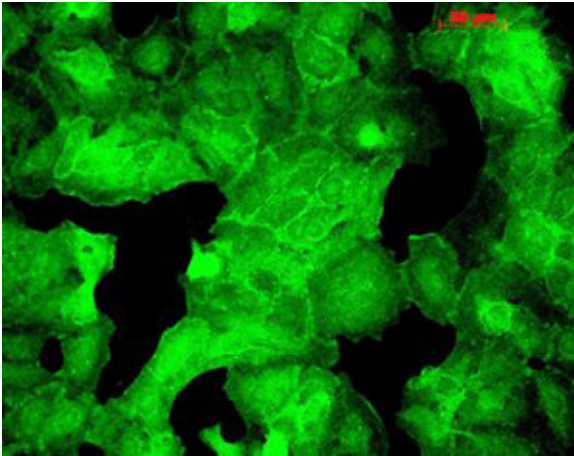
<b>Shipping Condition:</b>	Wet Ice
<b>Storage Condition:</b>	Store vial at -20° C prior to opening. Aliquot contents and freeze at -20° C or below for extended storage. Avoid cycles of freezing and thawing. Centrifuge product if not completely clear after standing at room temperature. This product is stable for several weeks at 4° C as an undiluted liquid. Dilute only prior to immediate use.
<b>Expiration:</b>	Expiration date is one (1) year from date of receipt.

## Images



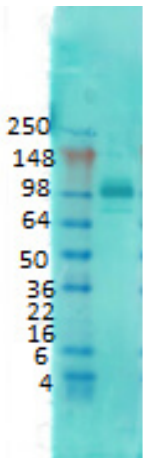
### Immunohistochemistry

Immunocytochemistry of Mouse anti-PSD95 antibody.  
Tissue: Cultures of dissociated hippocampal neurons.  
Fixation: N/A Antigen retrieval: not required. Primary antibody: PSD95 antibody at 10 ug/mL for 1h at RT.  
Secondary antibody: Fluorescein mouse secondary antibody at 1:10,000 for 45 min at RT. Localization: PSD95 is cell membrane and cell junctions. Staining: PSD95 as precipitated white signal.



### Immunofluorescence Microscopy

Immunofluorescence of mouse anti-PSD95 antibody. Tissue: HaCat cells. Antigen retrieval: not required. Primary Antibody: PSD95 at 1ug/ml for 1h at RT. Secondary antibody: Anti-Mouse secondary at 1:10,000 for 45 min at RT. Localization: Cell Membrane and cell Junctions. Staining: PSD95 as green fluorescent signal.



### Western Blot

Western Blot of mouse anti-PSD95 total antibody. Lane 1: Rat Membrane. Primary antibody: PSD95 total antibody at 1:1000 for overnight at 4°C. Secondary antibody: Goat anti-mouse IgG HRP secondary antibody at 1:10,000 for 45 min at RT. Block: 5% Blotto overnight 4°C. Predicted/Observed size: 80.4 kDa/100kD. Other band(s): An additional protein of >100kDa is also detected. Additional cross-reactive bands are detected at ~75kDa and 50kDa in rat and mouse samples.

## Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.