

Datasheet for 200-301-G39**SAP97 Antibody****Overview**

Description:	Anti-SAP97 (MOUSE) Monoclonal Antibody - 200-301-G39
Item No.:	200-301-G39
Size:	100 µg
Applications:	IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Mouse

Product Details**Background:**

Synapse-Associated Protein 97 (SAP97/human homologue of Drosophila discs-large tumor suppressor or HDLG) is one of a family of plasma membrane-associated proteins found in synaptic junctions. This is a novel, presynaptic membrane protein homologous to SAP90 and the Drosophila discs-large tumor suppressor protein. SAP97 has three ~90 amino acid repeats called PDZ domains, a single interior SH3 domain, and a carboxyl-terminal guanylate kinase homology (GuK) domain that is enzymatically inactive. It is hypothesized that PDZ-domain interactions play a role in receptor and channel clustering which contributes to neuronal plasticity. SAP97 is believed to participate in the clustering of certain proteins, including N-methyl-D-aspartate (NMDA) receptors and Shaker-type potassium channels at the synaptic membrane. There are two principal modes of interaction between SAP97 and other proteins. NMDA receptors and Shaker-type potassium channels both share C-terminal sequence homology consisting of a threonine/serine-X-valine-COOH (T/SXV) motif (2). Other neuronal proteins that share this motif (beta 1 adrenergic receptor, some serotonin receptors, some sodium channel subunits, and additional potassium channel subunits) may interact with SAP97 by binding to its PDZ domains. Neuronal nitric oxide synthase (nNOS), which lacks the T/SXV motif but which has its own PDZ domain, has been shown to associate with SAP97 in vitro through a pseudo-homotypic PDZ-PDZ interaction.

Synonyms:	DIgh1, SAP97, DIg1, Synapse-associated protein 97, Disks large homolog 1
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	S64-15
Format:	IgG1

Target Details

Gene Name:	Dlg1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Recombinant Protein
Immunogen:	SAP97 Antibody was produced in mice by repeated immunizations raised against a fusion protein corresponding to an n-terminal region of rat SAP97.
Purity/Specificity:	Anti-SAP97 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with SAP97 from Mouse, Human, and Rat based on 100% homology with the immunizing sequence. No cross-reactivity against PSD95, SAP102 and Chapsyn110 expressed in transfected cells. Cross-reactivity with SAP97 from other sources has not been determined. Ion Channels research.
Relevant Links:	• NCBI - NP_036920.1 • GeneID - 25252 • UniProtKB - Q62696

Application Details

Tested Applications:	IHC, WB
Application Note:	Anti-SAP97 Antibody is tested for use in WB, IHC and IP. Expect a band approximately ~130kDa on specific lysates. Specific conditions for reactivity should be optimized by the end user.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IHC:	User Optimized
IP:	User Optimized
WB:	1:1000

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	1X PBS, pH 7.4
Preservative:	0.09% (w/v) Sodium Azide

Stabilizer: 50% (v/v) Glycerol

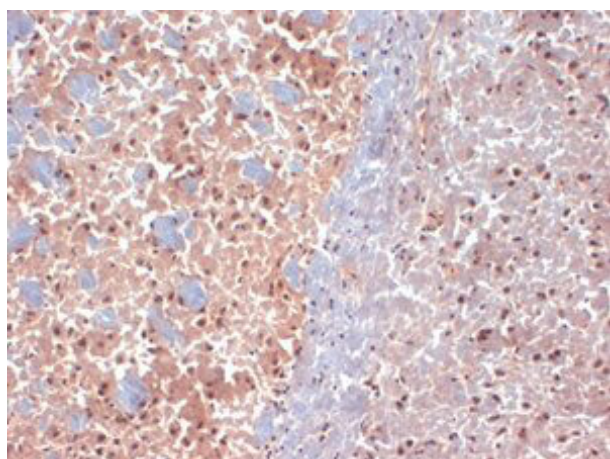
Shipping & Handling

Shipping Condition: Wet Ice

Storage Condition: 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.

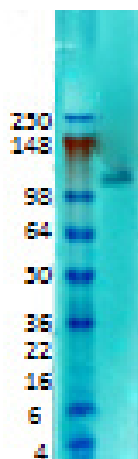
Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunohistochemistry

Immunohistochemistry of mouse anti-sap97 antibody.
 Tissue: Frozen sections of mouse brain extract. Primary
 Antibody: SAP97 antibody at 1 µg/mL for 1h at RT.
 Secondary antibody: Peroxidase mouse secondary at
 1:10,000 for 45 min at RT. Localization: Membrane.
 Staining: SAP97 as brown signal.



Western Blot

Western Blot of mouse anti-SAP97 antibody. Lane 1: Rat
 Brain Membrane. Primary antibody: SAP97 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: 100.5 kDa/130kD. Other band(s): none.

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.