

Anti-SAP97 (MOUSE) Monoclonal Antibody - 200-301-G39

Code: 200-301-G39

Size: 100 µg

Product Description: Anti-SAP97 (MOUSE) Monoclonal Antibody - 200-301-G39

Concentration: 1 mg/mL by UV absorbance at 280 nm

PhysicalState: Liquid (sterile filtered)

Label	Unconjugated
Host	Mouse
Gene Name	Dlg1
Species Reactivity	Human, Mouse, Rat
Buffer	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Stabilizer	50% (v/v) Glycerol
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.
Synonyms	Dlgh1, SAP97, Dlg1, Synapse-associated protein 97, Disks large homolog 1
Application Note	Anti-SAP97 Antibody is suitable 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.
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.
Purity And 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.
Western Blot	1:1000
Immunohistochemistry	User Optimized
Expiration	Expiration date is one (1) year from date of opening.
Immunogen	SAP97 Antibody was produced in mice by repeated immunizations raised against a fusion protein corresponding to an n-terminal region of rat SAP97.
General Reference	<ol style="list-style-type: none"> Vaidyanathan R., et al. (2010) J Biol Chem. EPUB Jeyifous O., et al. (2009) Nat Neurosci. 12(8): 1011-1919. Cui H., et al. (2007) J Neurosci. 27(37): 9901-9915. Chaudhury A., He X.D., and Goyal R.K. (2009) Am J Physiol Gastrointest Liver Physiol. 297: G806-G813.

Related Products

600-401-938	Anti-Myosin (RABBIT) Antibody - 600-401-938
611-1302	Anti-RABBIT IgG (H&L) (GOAT) Antibody Peroxidase Conjugated - 611-1302
BSA-30	BOVINE SERUM ALBUMIN 30% Solution - BSA-30
MB-070	Blocking Buffer for Fluorescent Western Blotting - MB-070

Related Links

NCBI - NP_036920.1

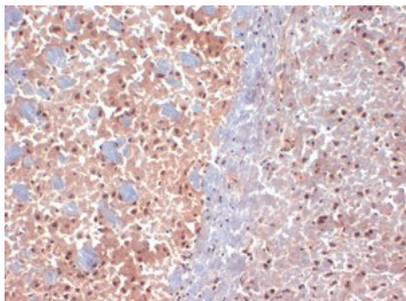
http://www.ncbi.nlm.nih.gov/protein/NP_036920.1

GeneID - 25252 <http://www.ncbi.nlm.nih.gov/sites/entrez?db=gene&term=25252>

UniProtKB - Q62696

Images

- 1 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.



- 2 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.



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