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Datasheet for 200-301-G38

SAP102 Antibody

Overview

Description:	Anti-SAP102 (MOUSE) Monoclonal Antibody - 200-301-G38
Item No.:	200-301-G38
Size:	100 µg
Applications:	IHC, WB, IP
Reactivity:	Human, Mouse, Rat
Host Species:	Mouse

Product Details

Background:	Synapse-associated protein 102 belongs to the membrane-associated guanylate kinase protein family and is a homolog of the Drosophila dis large tumor suppressor protein. SAP102 has extensive sequence homology to the PSD 95 family of proteins that facilitate ion channel clustering at synaptic terminal. SAP102 consists of three 90 amino acids PDZ domains at its amino terminus, a Src homology 3 domain and a guanylate kinase domain. All three PDZ domains of SAP102 participate in binding to the NMDA reception, interacting specifically with the carboxy-terminal domain of the N-methyl-D-aspartate receptor 2B (NR2B). The interaction may facilitate AMPA receptor withdrawal from the postsynaptic membrane by inhibiting the ERK/MAPK pathway. SAP102 also interacts with synaptic ras-GTPase activating protein synGAP through its PDZ domains. In general, the SAP102 protein is more highly expressed in non-proliferating cells than in proliferating cells, indicating a role in the negative regulation of cell growth.
Synonyms:	DLG3, MRX90, NEDLG, XLMR, Disks large homolog 3, PSD-95/SAP90-related protein 1, Synapse-associated protein 102, SAP-102
Host Species:	Mouse
Clonality:	Monoclonal
Clone ID:	S19-2
Format:	IgG1

Target Details

Gene Name:	Dlg3

Reactivity:	Human, Mouse, Rat
Immunogen Type:	Recombinant Protein
Immunogen:	SAP102 Antibody was produced in mice by repeated immunizations raised against a fusion protein corresponding to an n-terminal region of rat SAP102.
Purity/Specificity:	Anti-SAP102 Antibody was purified by Protein G chromatography. A BLAST analysis was used to suggest cross-reactivity with SAP102 from Human, Mouse, and Rat based on 100% homology with the immunizing sequence. No cross-reactivity against PSD95, SAP97 or Chapsyn-110. Cross-reactivity with SAP102 from other sources has not been determined. Organelle Markers, Neurobiology research.
Relevant Links:	• NCBI - NP_113827.1 • GeneID - 58948 • UniProtKB - Q62936

Application Details

Tested Applications:	IHC, WB
Suggested Applications:	IP (Based on references)
Application Note:	Anti-SAP102 Antibody is tested for WB, IP, and IHC. Expect a band approximately 105kDa protein, corresponding to the molecular mass of SAP102 on SDS Page immunoblots. 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

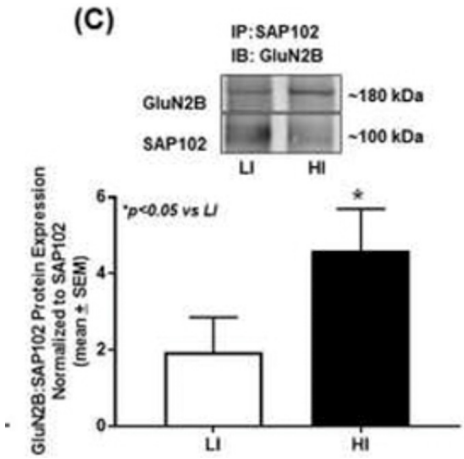
Physical State:	Liquid (sterile filtered)
Concentration:	1.0 mg/mL by UV absorbance at 280 nm

Shipping & Handling

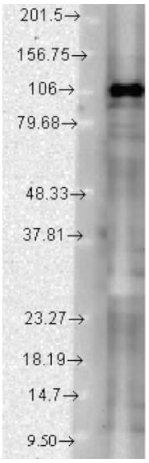
Shipping Condition:	Wet Ice

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



Western Blot
High trait motor impulsivity associates with GluN2B synaptic trafficking and stabilization.
(C) IP for SAP102 and IB for GluN2B demonstrated that SAP102 associates with GluN2B to a higher extent in HI versus LI rats (*p<0.05 vs. LI). The insets are representative immunoblot bands. Arbitrary units (A.U.) of densitometry are presented.
Fig 6.
PMID: 31295463



Western Blot
Western Blot of mouse anti-SAP102 antibody. Lane 1: Rat Brain Extract. Primary antibody: SAP102 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: 93.5 kDa/105kD. Other band(s): none.

References

- Davis-Reyes B et al. Profile of cortical N-methyl-D-aspartate receptor subunit expression associates with inherent motor impulsivity in rats. *Biochem Pharmacol.* (2019)

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