

**SAP102 Antibody**  
**SAP102 Antibody, Clone S19-2**  
**Catalog # ASM10047**

## Specification

### SAP102 Antibody - Product Information

Application	WB, IHC, IP, ICC, AM
Primary Accession	<a href="#">Q62936</a>
Other Accession	<a href="#">NP_113827.1</a>
Host	Mouse
Isotype	IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal
Format	APC

#### Description

Mouse Anti-Rat SAP102 Monoclonal IgG1

#### Target/Specificity

Detects ~105kDa. No cross-reactivity against PSD95, SAP97 or Chapsyn-110.

#### Other Names

DLG3 Antibody, MRX90 Antibody, NEDLG Antibody, XLMR Antibody, Disks large homolog 3 Antibody, PSD-95/SAP90-related protein 1 Antibody, Synapse-associated protein 102 Antibody, SAP-102 Antibody

#### Immunogen

Fusion protein amino acids 1-120 of rat SAP102

#### Purification

Protein G Purified

#### Storage

-20°C

#### Storage Buffer

PBS pH7.4, 50% glycerol, 0.09% sodium azide

#### Shipping Temperature

Blue Ice or 4°C

#### Certificate of Analysis

1 µg/ml was sufficient for detection of Sap102 in 10 µg of rat brain lysate by colorimetric immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary.

#### Cellular Localization

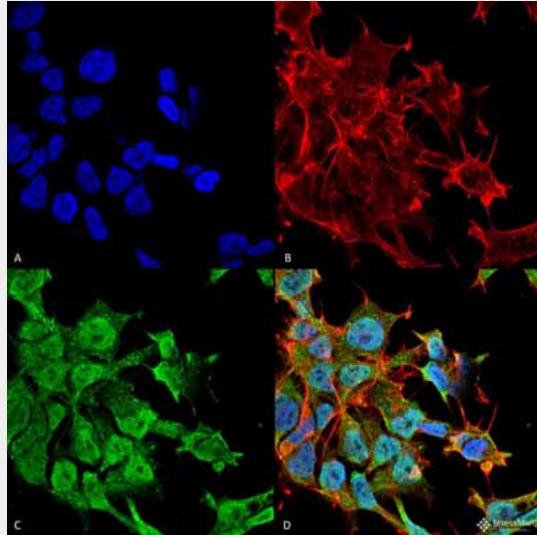
Basolateral Cell Membrane | Cytoplasm | Cell Junction | Synapse | Postsynaptic Cell Membrane | Postsynaptic Density | Growth Cone

### SAP102 Antibody - Protocols

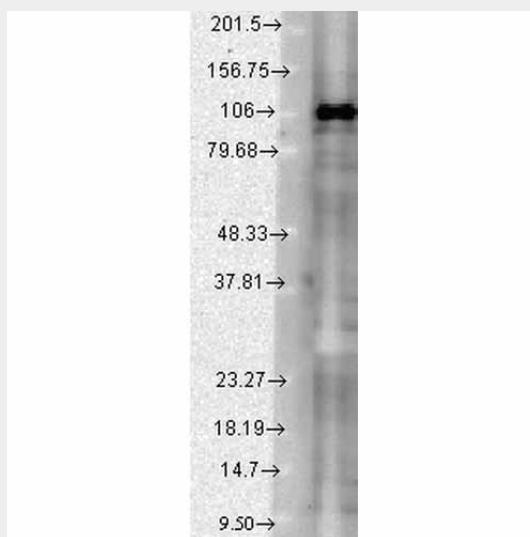
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)

- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**SAP102 Antibody - Images**

Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-SAP102 Monoclonal Antibody, Clone S19-2 (ASM10047). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-SAP102 Monoclonal Antibody (ASM10047) at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:100 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60min RT, 5min RT. Localization: Cytoplasm . Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) SAP102 Antibody (D) Composite.



Western Blot analysis of Rat brain lysates showing detection of SAP102 protein using Mouse Anti-SAP102 Monoclonal Antibody, Clone S19-2 (ASM10047). Load: 15 µg. Block: 1.5% BSA for 30

minutes at RT. Primary Antibody: Mouse Anti-SAP102 Monoclonal Antibody (ASM10047) at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.

### **SAP102 Antibody - 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 (1, 2). SAP102 consists of three 90 amino acids PDZ domains at its amino terminus, a Src homology 3 domain and a guanylate kinase domain (3). 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 (3, 4). SAP102 also interacts with synaptic ras-GTPase activating protein synGAP through its PDZ domains (3). 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.

### **SAP102 Antibody - References**

1. Muller B.M., et al. (1996) *Neuron* 17: 255-265.
2. Lau L. F., et al. (1996) *J. Biol. Chem.* 271: 21622-21628.
3. Cuthbert P.C., et al. (2007) *J Neuroscience* 27:2673-2682.
4. Lau L.F., et al. (1996) *J Biol Chem* 274:5782-5790.