

FIG4/SAC3 Antibody
FIG4/SAC3 Antibody, Clone S202-7
Catalog # ASM10300

Specification

FIG4/SAC3 Antibody - Product Information

Application	WB
Primary Accession	O91WF7
Other Accession	NP_598760.1
Host	Mouse
Isotype	IgG1
Reactivity	Human, Mouse, Rat
Clonality	Monoclonal

Description

Mouse Anti-Mouse FIG4/SAC3 Monoclonal IgG1

Target/Specificity

Detects ~100kDa.

Other Names

Polyphosphoinositide phosphatase Antibody, 5-bisphosphate 5-phosphatase Antibody, Fig4 Antibody, KIAA0274 Antibody, Sac3 Antibody, Phosphatidylinositol 3 Antibody, Phosphatidylinositol 3, 5 bisphosphate 5 phosphatase Antibody, SAC domain containing protein 3 Antibody, SAC domain-containing protein 3 Antibody, SAC3 Antibody

Immunogen

Fusion protein amino acids 688-907 (C-terminus) of mouse Sac3. Rat: 95% identity (203/220 amino acids identical). Human: 91% identity (201/220 amino acids identical)

Purification

Protein G Purified

Storage **-20°C**

Storage Buffer

PBS pH 7.4, 50% glycerol, 0.1% sodium azide

Shipping Temperature **Blue Ice or 4°C**

Certificate of Analysis

1 µg/ml of SMC-468 was sufficient for detection of FIG4/SAC3 in 20 µg of rat brain lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

Cellular Localization

Endosome | Endosome membrane

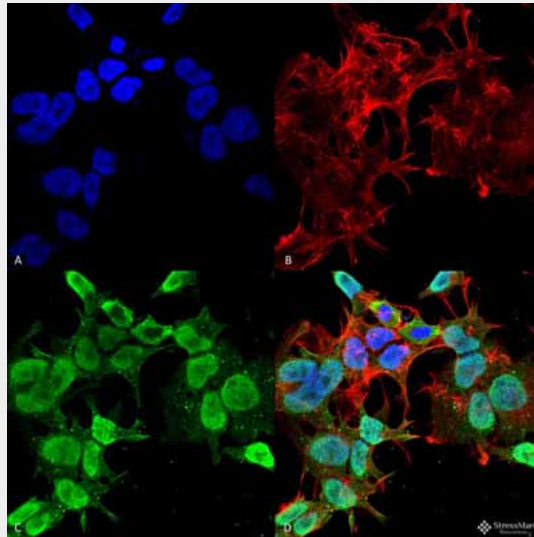
FIG4/SAC3 Antibody - Protocols

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

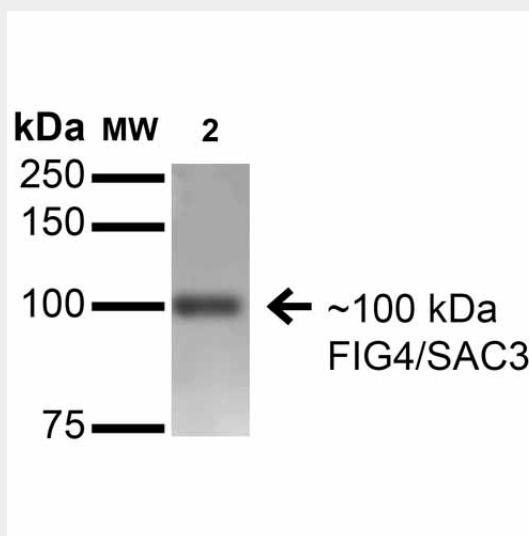
- [Western Blot](#)

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

FIG4/SAC3 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-FIG4/SAC3 Monoclonal Antibody, Clone S202-7 (ASM10300). Tissue: Neuroblastoma cell line (SK-N-BE). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-FIG4/SAC3 Monoclonal Antibody (ASM10300) 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 60 min RT, 5 min RT. Localization: Cytoplasm, Nucleus, Endosome, Endosome membrane. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) FIG4/SAC3 Antibody (D) Composite.



Western Blot analysis of Mouse Brain Membrane showing detection of ~100 kDa FIG4/SAC3 protein using Mouse Anti-FIG4/SAC3 Monoclonal Antibody, Clone S202-7 (ASM10300). Lane 1:

Molecular Weight Ladder. Lane 2: Mouse Brain Membrane. Load: 15 µg. Block: 2% BSA and 2% Skim Milk in 1X TBST. Primary Antibody: Mouse Anti-FIG4/SAC3 Monoclonal Antibody (ASM10300) at 1:200 for 16 hours at 4°C. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 1 hour RT. Color Development: ECL solution for 6 min in RT. Predicted/Observed Size: ~100 kDa.

FIG4/SAC3 Antibody - Background

Fig4/Sac3 phosphatase, a 97-kDa protein, specifically removes the 5-phosphate from the inositol ring of PI(3,5)P₂, a membrane-bound phospholipid, which acts as a molecular signal for trafficking and fusion of intracellular vesicles. It is broadly expressed in all eukaryotic cells and plays a vital role in intracellular membrane trafficking and signaling.

Mutations in Fig4/Sac3 have been linked to pale tremor mice that exhibit neuropathy with severe central and peripheral neuronal degeneration, including the loss of neurons in the dorsal root ganglion and the sciatic nerve. Fig4/Sac3 knockout mice have been shown to be smaller in size and exhibit abnormal tremor and gait and neuronal autophagy.