

**SGMS1 Antibody (N-term)**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP13562a****Specification**

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**SGMS1 Antibody (N-term) - Product Information**

Application	IHC-P, WB,E
Primary Accession	<a href="#">Q86VZ5</a>
Other Accession	<a href="#">Q8VCQ6</a> , <a href="#">NP_671512.1</a>
Reactivity	Human
Predicted	Mouse
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	48617
Antigen Region	24-53

**SGMS1 Antibody (N-term) - Additional Information****Gene ID** 259230**Other Names**

Phosphatidylcholine:ceramide cholinephosphotransferase 1, Medulla oblongata-derived protein, Protein Mob, Sphingomyelin synthase 1, Transmembrane protein 23, SGMS1, MOB, SMS1, TMEM23

**Target/Specificity**

This SGMS1 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 24-53 amino acids from the N-terminal region of human SGMS1.

**Dilution**

IHC-P~~1:10~50

WB~~1:1000

E~~Use at an assay dependent concentration.

**Format**

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

**Storage**

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

SGMS1 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

**SGMS1 Antibody (N-term) - Protein Information**

**Name** SGMS1**Synonyms** MOB, SMS1, TMEM23

**Function** Major sphingomyelin synthase at the Golgi apparatus (PubMed:[14685263](#), PubMed:[17449912](#)). Catalyzes the reversible transfer of phosphocholine moiety in sphingomyelin biosynthesis: in the forward reaction transfers phosphocholine head group of phosphatidylcholine (PC) on to ceramide (CER) to form ceramide phosphocholine (sphingomyelin, SM) and diacylglycerol (DAG) as by-product, and in the reverse reaction transfers phosphocholine from SM to DAG to form PC and CER. The direction of the reaction depends on the levels of CER and DAG in Golgi membranes (PubMed:[14685263](#), PubMed:[14976195](#), PubMed:[17449912](#), PubMed:[17982138](#), PubMed:[19454763](#)). Converts the newly synthesized CER, that is transported from the endoplasmic reticulum to the trans-Golgi by the Cer transport protein (CERT), to SM (PubMed:[30242129](#)). Can form a heteromeric complex with glucosylceramide synthase (GCS) increasing SMS activity and reducing glucosylceramide synthesis, a critical mechanism that controls the metabolic fate of CER in the Golgi (PubMed:[30242129](#)). Does not use free phosphorylcholine or CDP-choline as donor (PubMed:[14685263](#), PubMed:[14976195](#)). Can also transfer phosphoethanolamine head group of phosphatidylethanolamine (PE) on to CER to form ceramide phosphoethanolamine (CPE) (By similarity). Regulates receptor-mediated signal transduction via mitogenic DAG and proapoptotic CER, as well as via SM, a structural component of membrane rafts that serve as platforms for signal transduction and protein sorting (PubMed:[14976195](#), PubMed:[17449912](#), PubMed:[17982138](#)). Plays a role in secretory transport via regulation of DAG pool at the Golgi apparatus and its downstream effects on PRKD1 (PubMed:[18370930](#), PubMed:[21980337](#)).

**Cellular Location**

Golgi apparatus membrane; Multi-pass membrane protein

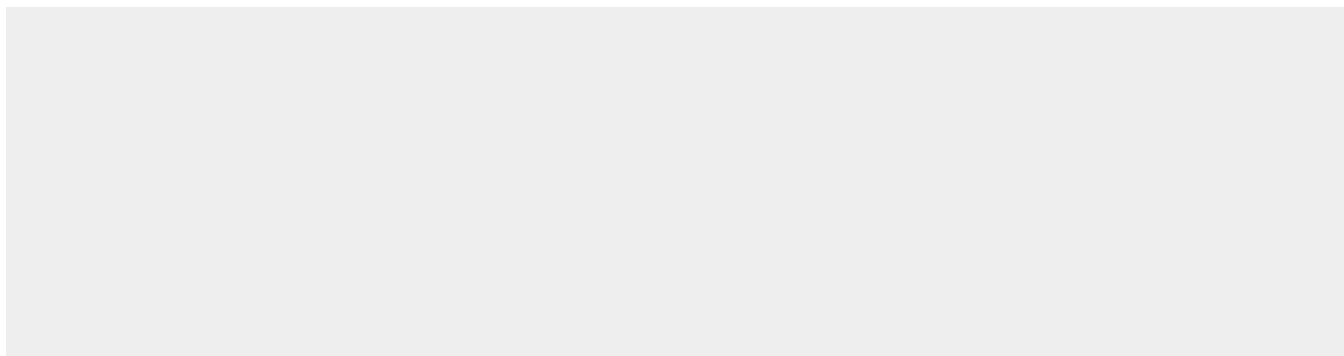
**Tissue Location**

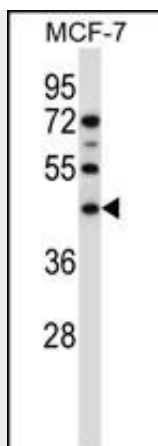
Brain, heart, kidney, liver, muscle and stomach.

**SGMS1 Antibody (N-term) - Protocols**

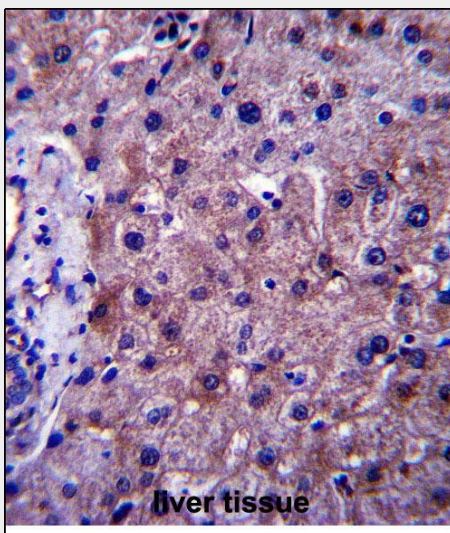
Provided below are standard protocols that you may find useful for product applications.

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

**SGMS1 Antibody (N-term) - Images**



SGMS1 Antibody (N-term) (Cat. #AP13562a) western blot analysis in MCF-7 cell line lysates (35ug/lane). This demonstrates the SGMS1 antibody detected the SGMS1 protein (arrow).



SGMS1 Antibody (N-term) (Cat. #AP13562a) immunohistochemistry analysis in formalin fixed and paraffin embedded human liver tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of SGMS1 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

### **SGMS1 Antibody (N-term) - Background**

The protein encoded by this gene is predicted to be a five-pass transmembrane protein. This gene may be predominately expressed in brain.

### **SGMS1 Antibody (N-term) - References**

Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :  
Lafont, E., et al. Cell Death Differ. 17(4):642-654(2010)  
Vacaru, A.M., et al. J. Cell Biol. 185(6):1013-1027(2009)  
Wang, W., et al. Plant Cell 20(11):3163-3179(2008)  
Jin, Z.X., et al. Int. Immunol. 20(11):1427-1437(2008)