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SGSM1 Antibody
Catalog # ASC11547

Specification

SGSM1 Antibody - Product Information

Application	**WB, IF**
Primary Accession	Q2NKQ1
Other Accession	NP_001035037, 90577167
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**126 kDa KDa**
Application Notes	**SGSM1 antibody can be used for detection of SGSM1 by Western blot at 1 µg/mL. For immunofluorescence start at 20 µg/mL.**

SGSM1 Antibody - Additional Information

Gene ID **129049**

Target/Specificity
SGSM1; At least four isoforms of SGSM1 are known to exist; SGSM1 antibody will detect all four isoforms.

Reconstitution & Storage
SGSM1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

Precautions
SGSM1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SGSM1 Antibody - Protein Information

Name SGSM1

Synonyms KIAA1941, RUTBC2

Function
Interacts with numerous Rab family members, functioning as Rab effector for some, and as GTPase activator for others. Promotes GTP hydrolysis by RAB34 and RAB36. Probably functions as a GTPase effector with RAB9A and RAB9B; does not stimulate GTP hydrolysis with RAB9A and RAB9B.

Cellular Location
Golgi apparatus, trans-Golgi network {ECO:0000250|UniProtKB:Q8BPQ7}. Cytoplasmic vesicle membrane; Peripheral membrane protein. Cytoplasm Note=Recruited to cytoplasmic vesicle membranes via its interaction with Rab family members, such as RAB9A.

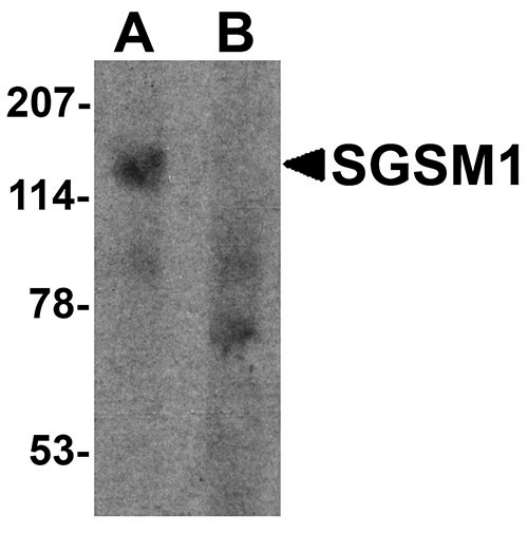
Tissue Location
Mainly expressed in brain, heart and testis.

SGSM1 Antibody - Protocols

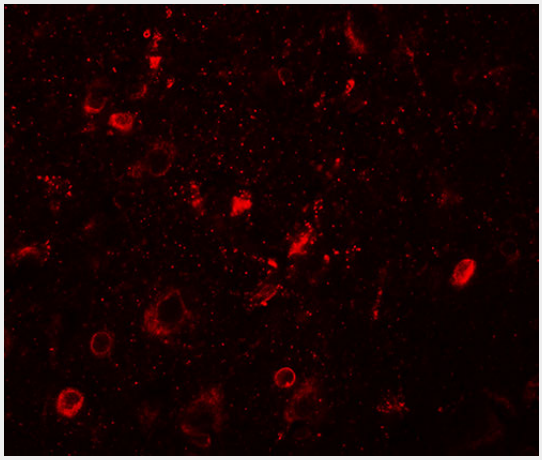
Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SGSM1 Antibody - Images



Western blot analysis of SGSM1 in human cerebellum tissue lysate with SGSM1 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.



Immunofluorescence of SGSM1 in human brain tissue with SGSM1 antibody at 20 µg/mL.

SGSM1 Antibody - Background

SGSM1 Antibody: Small G proteins such as RAP and RAB proteins are the key molecules in intracellular signal transduction and vesicle transportation. A novel protein family small G protein signaling modulator (SGSM) consisting of three members SGSM1-3 bind to RAP and RAB family proteins. All three SGSM proteins possess both a RUN domain and a TBC domain. SGSM1 (RUTBC2) is a 1,148 amino acid protein that localizes to the Golgi apparatus and is mainly expressed in the CNS. SGSM1 interacts with RAP and RAB subfamily members of the small G proteins, and function as modulators of RAP and RAB-mediated neuronal signal transduction and vesicular transportation pathways.

SGSM1 Antibody - References

Bar-Sagi D and Hall A. Ras and Rho GTPases: a family reunion. Cell 2000; 103:227-38.
Colicelli J. Human ras superfamily proteins and related GTPases. Sci. STKE 2004; 250:RE13.
Yang H, Sasaki T, Minoshima S, et al. Identification of three novel proteins (SGSM1, 2, 3) which modulate small G protein (RAP and RAB)-mediated signaling pathway. Genomics 2007; 90:249-60.
Williams JA, Chen X and Sabbatini ME. Small G proteins as key regulators of pancreatic digestive enzyme secretion. Am. J. Physiol. Endocrinol. Metab. 2009; 296:E405-14.