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SGSM1 Antibody

Catalog # ASC11547

Product Information

Application	WB, IF, E
Primary Accession	Q2NKQ1
Other Accession	NP_001035037, 90577167
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	129718
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SGSM1 antibody can be used for detection of SGSM1 by Western blot at 1 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	129049
Other Names	Small G protein signaling modulator 1, RUN and TBC1 domain-containing protein 2, SGSM1, KIAA1941, RUTBC2
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.

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.

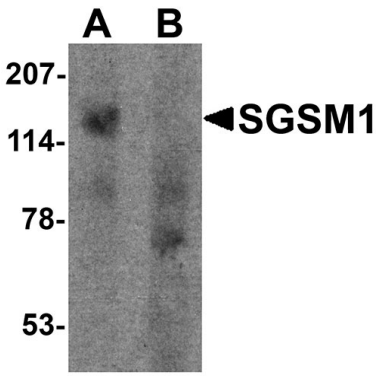
Background

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.

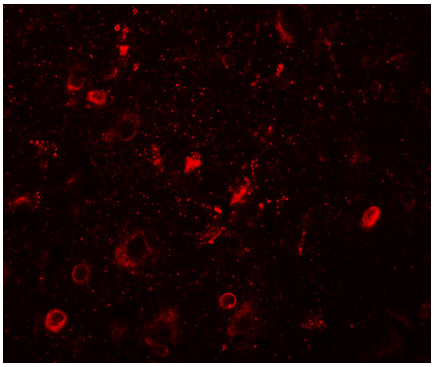
References

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.

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.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.