

SGSM2 Antibody

Catalog # ASC11548

Product Information

Application	WB, IF, E
Primary Accession	O43147
Other Accession	NP_055668 , 148612795
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	113285
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	SGSM2 antibody can be used for detection of SGSM2 by Western blot at 1 µg/mL. For immunofluorescence start at 20 µg/mL.

Additional Information

Gene ID	9905
Other Names	Small G protein signaling modulator 2, RUN and TBC1 domain-containing protein 1, SGSM2, KIAA0397, RUTBC1
Target/Specificity	SGSM2; Multiple isoforms of SGSM2 are known to exist. SGSM2 antibody is predicted to not cross react with other SGSM family proteins.
Reconstitution & Storage	SGSM2 antibody can be stored at 4°C for three months and -20°C, 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	SGSM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	SGSM2
Synonyms	KIAA0397, RUTBC1
Function	Possesses GTPase activator activity towards RAB32, RAB33B and RAB38 (PubMed: 21808068 , PubMed: 26620560). Regulates the trafficking of melanogenic enzymes TYR, TYRP1 and DCT/TYRP2 to melanosomes in melanocytes by inactivating RAB32 and RAB38. Inhibits RAB32 and RAB38 activation both directly by promoting their GTPase activity and indirectly by disrupting the RAB9A-HPS4 interaction which is required for RAB32/38 activation (PubMed: 26620560).

Cellular Location	Cytoplasm. Melanosome. Note=Melanosomal localization is mediated by RAB9A.
Tissue Location	Widely expressed..

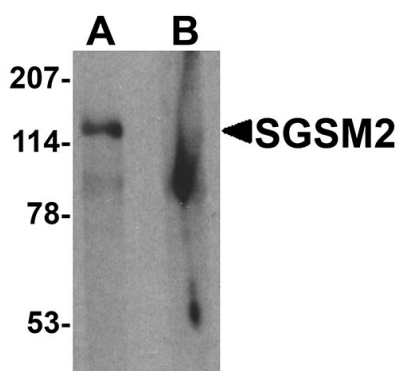
Background

SGSM2 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. SGSM2 is a Rab9A effector that activates GTP hydrolysis by Rab32 and Rab33B proteins.

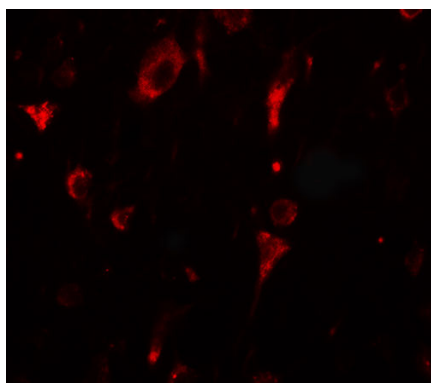
References

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.
Nottingham RM, Ganley IG, Barr FA, et al. RUTBC1 protein, a Rab9A effector that activates GTP hydrolysis by Rab32 and Rab33B proteins. *J. Biol. Chem.* 2011; 286:33213-22.

Images



Western blot analysis of SGSM2 in human cerebellum tissue lysate with SGSM2 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide



Immunofluorescence of SGSM2 in human brain tissue with SGSM2 antibody at 20 µg/mL.

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