10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

SGSM2 Antibody
Catalog # ASC11548

Specification

SGSM2 Antibody - Product Information

Application	**WB, IF**
Primary Accession	O43147
Other Accession	NP_055668, 148612795
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**116 kDa KDa**
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.**

SGSM2 Antibody - Additional Information

Gene ID **9905**

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℃ 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
SGSM2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SGSM2 Antibody - Protein Information

Name SGSM2

Synonyms KIAA0397, RUTBC1

Function
Possesses GTPase activator activity towards RAB32, RAB33B and RAB38 (PubMed:26620560, PubMed:21808068). 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.

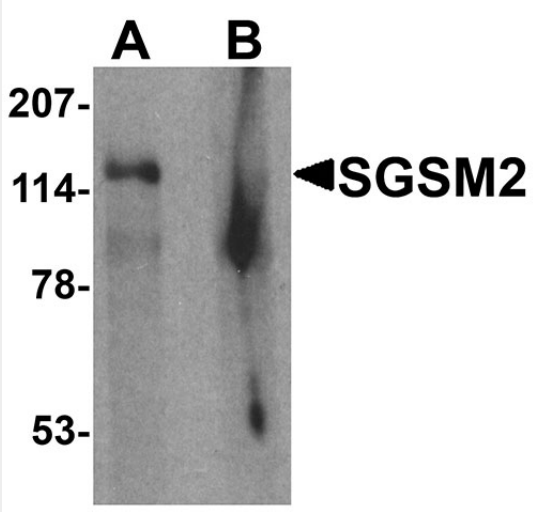
Tissue Location
Widely expressed..

SGSM2 Antibody - Protocols

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

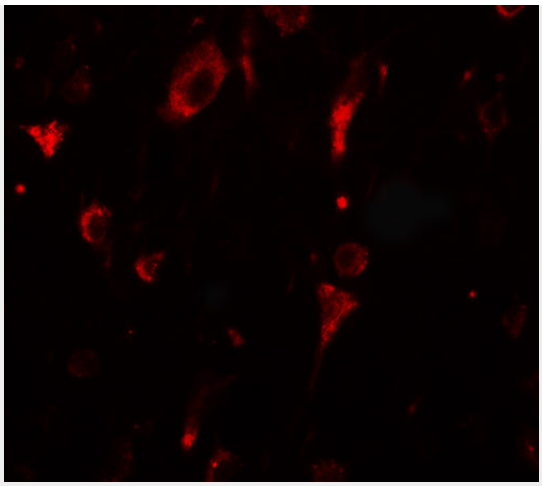
- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

SGSM2 Antibody - 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

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

SGSM2 Antibody - 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.

SGSM2 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.
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.