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SOGA1 Antibody
Catalog # ASC11703

Specification

SOGA1 Antibody - Product Information

Application	**WB, IF**
Primary Accession	O94964
Other Accession	NP_954650, 66773344
Reactivity	**Human**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Calculated MW	**Predicted: 183 kDa** **Observed: 200kDa KDa**
Application Notes	**SOGA1 antibody can be used for detection of SOGA1 by Western blot at 1 - 2 µg/ml.**

SOGA1 Antibody - Additional Information

Gene ID **140710**

Target/Specificity
SOGA1; SOGA1 antibody is human specific. At least four isoforms of SOGA1 are known to exist.

Reconstitution & Storage
SOGA1 antibody can be stored at 4℃ for three months and -20℃, stable for up to one year.

Precautions
SOGA1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

SOGA1 Antibody - Protein Information

Name MTCL2 (HGNC:16111)

Function
Microtubule-associated factor that enables integration of the centrosomal and Golgi-associated microtubules on the Golgi membrane, supporting directional migration. Preferentially acts on the perinuclear microtubules accumulated around the Golgi. Associates with the Golgi membrane through the N-terminal coiled-coil region and directly binds microtubules through the C-terminal domain (By similarity). Required for faithful chromosome segregation during mitosis (PubMed:33587225). Regulates autophagy by playing a role in the reduction of glucose production in an adiponectin- and insulin-dependent manner (By similarity).

Cellular Location
Cytoplasm, cytoskeleton. Golgi apparatus membrane {ECO:0000250|UniProtKB:E1U8D0}. Midbody Note=Associates with microtubules during late mitosis and interphase

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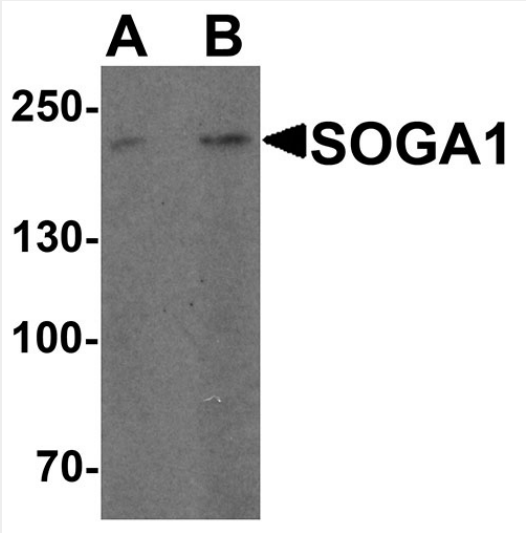
SOGA1 Antibody - Protocols

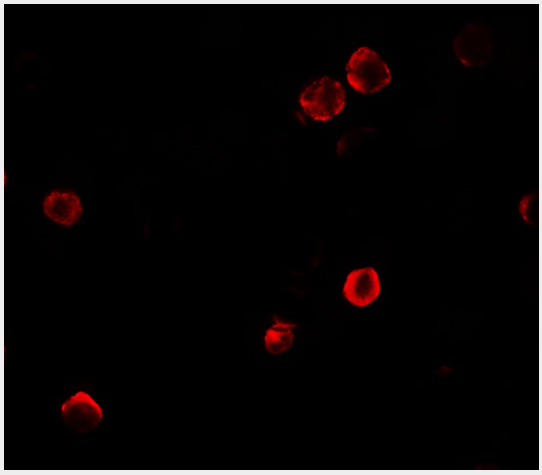
Provided below are standard protocols that you may find useful for product applications.

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

SOGA1 Antibody - Images



Western blot analysis of SOGA1 in Hela cell lysate with SOGA1 antibody at (A) 1 and (B) 2 µg/ml.



Immunofluorescence of SOGA1 in HeLa cells with SOGA1 antibody at 5 µg/mL.

SOGA1 Antibody - Background

The recently identified protein suppressor of glucose by autophagy protein 1 (SOGA1) has been

found to be involved in the regulation of autophagy (1). SOGA1 is thought to contribute to adiponectin-mediated insulin-dependent inhibition of autophagy during the activation of adenosine monophosphate kinase (AMPK) (1,2). SOGA1 contains an internal signal peptide that enables the secretion of a circulating fragment of SOGA1, providing a surrogate marker for intracellular SOGA1 levels (2). Knockdown of SOGA1 elevated glucose production in primary hepatocytes indicates that SOGA1 is an inhibitor of glucose production. It thus might be useful as a novel therapeutic target for diabetes (3).

SOGA1 Antibody - References

Cowherd RB, Asmar MM, Alderman JM, et al. Adiponectin lowers glucose production by increasing SOGA. Am. J. Pathol. 2010; 177:1936-45.
Madi T, Balamurugan K, Bombardi R, et al. The determination of tissue-specific DNA methylation patterns in forensic biofluids using bisulfite modification and pyrosequencing. Electrophoresis 2012; 33:1736-45.
Forbes JM. The physiological deadlock between AMPK and gluconeogenesis: SOGA, a novel protein, may provide the key. Am. J. Pathol. 2010; 177:1600-2.