

Sin1 Antibody
Rabbit Polyclonal Antibody
Catalog # ABV10752**Specification**

Sin1 Antibody - Product Information

Application	WB
Primary Accession	Q8BKH7
Other Accession	NP_796319
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	59009

Sin1 Antibody - Additional Information**Gene ID** 227743

Positive Control	Jurkat (Induced and Uninduced), Rat kidney, 3T3 cell lysates
Application & Usage	The antibody can be used for Western blot analysis (0.5-4 µg/ml). However, the optimal conditions should be determined individually. Blocking peptide is available separately.

Other Names

MAPKAP1; MIP1; MGC2745; SIN1; SIN1b; SIN1g

Target/Specificity

Sin1

Antibody Form

Liquid

Appearance

Colorless liquid

Formulation

100 µg (0.5 mg/ml) affinity purified rabbit anti-Sin1 polyclonal antibody in phosphate buffered saline (PBS), pH 7.2, containing 30% glycerol, 0.5% BSA, 5 mM EDTA and 0.01% thimerosal

Handling

The antibody solution should be gently mixed before use.

Reconstitution & Storage

-20 °C

Background Descriptions

Precautions

Sin1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Sin1 Antibody - Protein Information

Name Mapkap1

Synonyms Mip1, Sin1

Function

Subunit of mTORC2, which regulates cell growth and survival in response to hormonal signals. mTORC2 is activated by growth factors, but, in contrast to mTORC1, seems to be nutrient-insensitive. mTORC2 seems to function upstream of Rho GTPases to regulate the actin cytoskeleton, probably by activating one or more Rho-type guanine nucleotide exchange factors. mTORC2 promotes the serum-induced formation of stress-fibers or F-actin. mTORC2 plays a critical role in AKT1 'Ser-473' phosphorylation, which may facilitate the phosphorylation of the activation loop of AKT1 on 'Thr-308' by PDK1 which is a prerequisite for full activation. mTORC2 regulates the phosphorylation of SGK1 at 'Ser-422'. mTORC2 also modulates the phosphorylation of PRKCA on 'Ser-657'. Within mTORC2, MAPKAP1 is required for complex formation and mTORC2 kinase activity. MAPKAP1 inhibits MAP3K2 by preventing its dimerization and autophosphorylation. Inhibits HRAS and KRAS signaling. Enhances osmotic stress-induced phosphorylation of ATF2 and ATF2-mediated transcription. Isoform 1 is involved in ciliogenesis, regulates cilia length through its interaction with CCDC28B independently of mTORC2 complex.

Cellular Location

Cell membrane; Peripheral membrane protein. Cytoplasmic vesicle. Nucleus

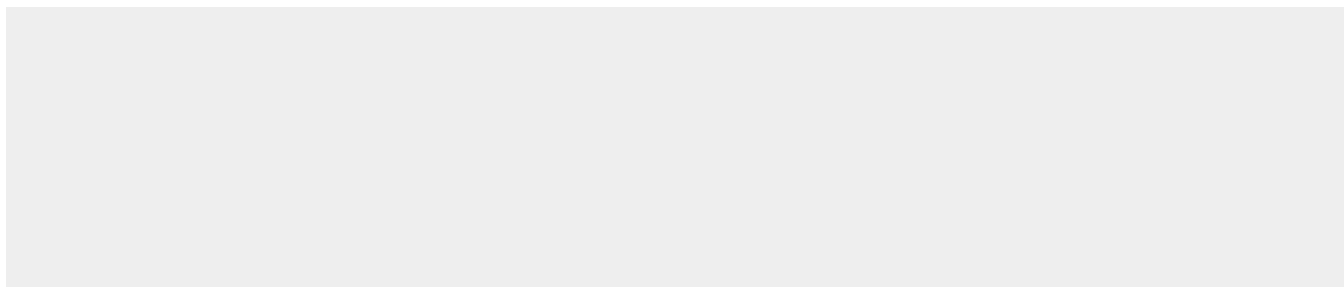
Tissue Location

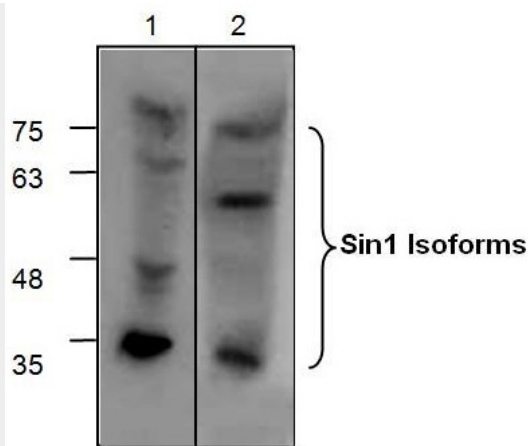
Uniquitously expressed, with highest levels in testis, kidney and liver. Present in renal tubule cells (at protein level).

Sin1 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 Cytometry](#)
- [Cell Culture](#)

Sin1 Antibody - Images



Western blot analysis of Sin1 with Jurkat cell lysates (Lane 1) and rat kidney tissue lysate (Lane 2).

Sin1 Antibody - Background

Stress-activated map kinase-interacting protein 1 or Sin1 is required for Rictor binding in the mTORC2 complex. Sin1 is also a scaffolding protein in SAPK (stress-activated kinase) signaling and JNK signaling pathway.