

**MAPKAP1 / MIP1 Antibody (N-Terminus)**  
**Rabbit Polyclonal Antibody**  
**Catalog # ALS11475****Specification**

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**MAPKAP1 / MIP1 Antibody (N-Terminus) - Product Information**

Application	IF, WB, IHC
Primary Accession	<a href="#">Q9BPZ7</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	59kDa KDa

**MAPKAP1 / MIP1 Antibody (N-Terminus) - Additional Information****Gene ID** 79109**Other Names**

Target of rapamycin complex 2 subunit MAPKAP1, TORC2 subunit MAPKAP1, Mitogen-activated protein kinase 2-associated protein 1, Stress-activated map kinase-interacting protein 1, SAPK-interacting protein 1, mSIN1, MAPKAP1, MIP1, SIN1

**Target/Specificity**

19 amino acid peptide from near the amino terminus of human MAPKAP1.

**Reconstitution & Storage**

Long term: -20°C; Short term: +4°C; Avoid freeze-thaw cycles.

**Precautions**

MAPKAP1 / MIP1 Antibody (N-Terminus) is for research use only and not for use in diagnostic or therapeutic procedures.

**MAPKAP1 / MIP1 Antibody (N-Terminus) - 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. 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

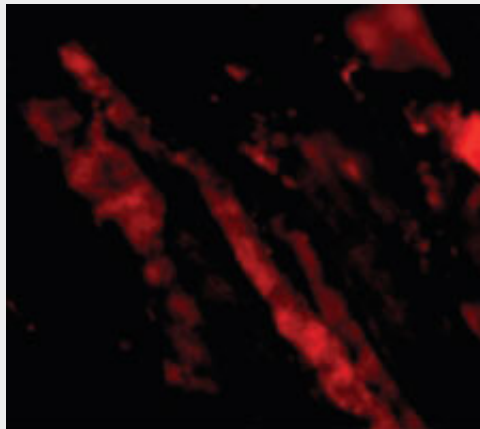
**Tissue Location**

Ubiquitously expressed, with highest levels in heart and skeletal muscle.

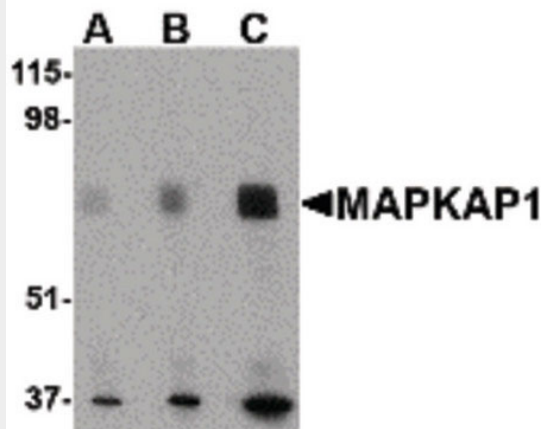
**MAPKAP1 / MIP1 Antibody (N-Terminus) - Protocols**

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

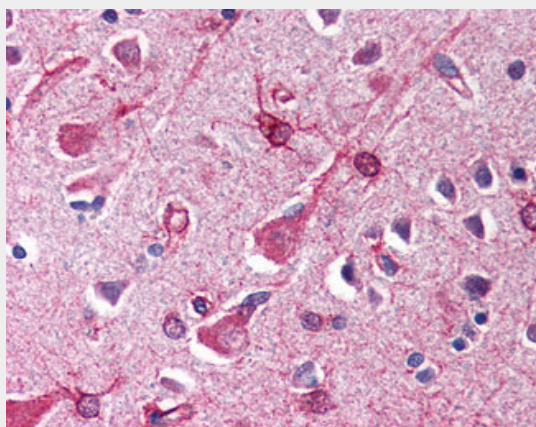
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

**MAPKAP1 / MIP1 Antibody (N-Terminus) - Images**

Immunofluorescence of MAPKAP1 in Human Skeletal Muscle cells with MAPKAP1 antibody at 20 ug/ml.



Western blot of MAPKAP1 in human skeletal muscle tissue lysate with MAPKAP1 antibody at (A) 0.5,...



Anti-SIN1 antibody IHC of human brain, cortex.

#### **MAPKAP1 / MIP1 Antibody (N-Terminus) - Background**

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. Involved in ciliogenesis, regulates cilia length through its interaction with CCDC28B independently of mTORC2 complex.

#### **MAPKAP1 / MIP1 Antibody (N-Terminus) - References**

- Schroder W.,et al.Gene 339:17-23(2004).
- Cheng J.,et al.Mol. Cell. Biol. 25:5955-5964(2005).
- Ota T.,et al.Nat. Genet. 36:40-45(2004).
- Bechtel S.,et al.BMC Genomics 8:399-399(2007).
- Humphray S.J.,et al.Nature 429:369-374(2004).