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

Specification

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

Application	**IF, WB, IHC**
Primary Accession	Q9BPZ7
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

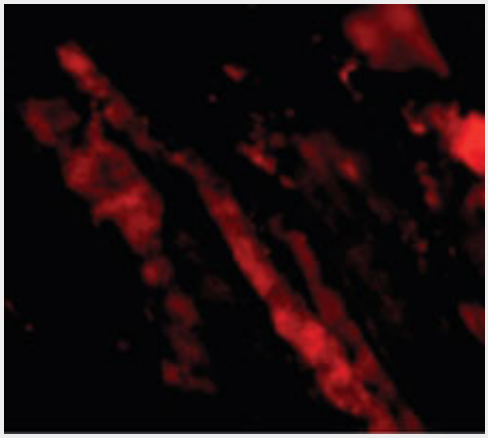
Tissue Location
Ubiquitously expressed, with highest levels in heart and skeletal muscle.

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 Cytomety
- Cell Culture

MAPKAP1 / MIP1 Antibody (N-Terminus) - Images



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

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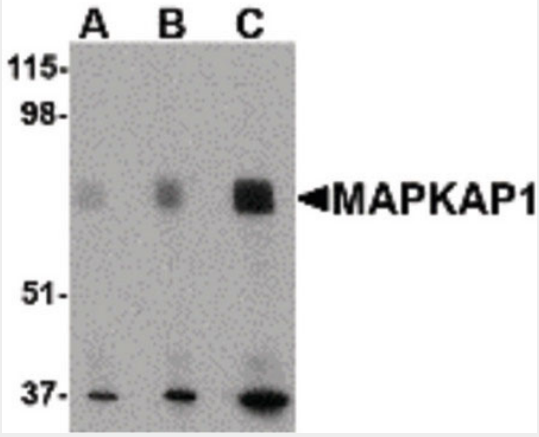
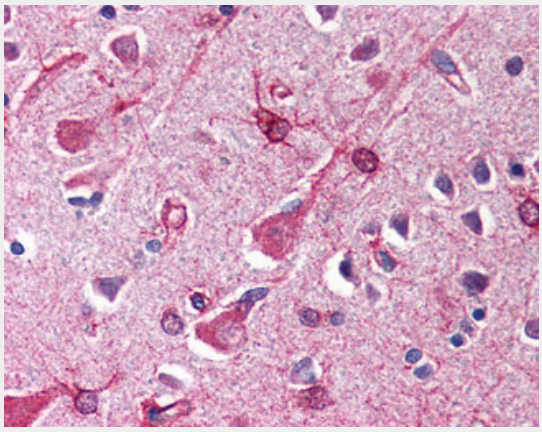


Western blot of MAPKAP1 in human skeletal muscle tissue lysate with MAPKAP1 antibody at (A) 0.5,...



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).