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MAPKAP1 Antibody (C-term) Blocking Peptide

Synthetic peptide
Catalog # BP8641b

Specification

MAPKAP1 Antibody (C-term) Blocking Peptide - Product Information

Primary Accession Q9BPZ7

MAPKAP1 Antibody (C-term) Blocking Peptide - 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
The synthetic peptide sequence used to generate the antibody AP8641b was selected from the C-term region of human MAPKAP1. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

MAPKAP1 Antibody (C-term) Blocking Peptide - Background

MAPKAP1 is highly similar to the yeast SIN1 protein, a stress-activated protein kinase.

MAPKAP1 Antibody (C-term) Blocking Peptide - References

Jin,J., et.al., Curr. Biol. 14 (16), 1436-1450 (2004)Sarbassov,D.D., et.al., Science 307 (5712), 1098-1101 (2005)

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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 Antibody (C-term) Blocking Peptide - Protocols

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

- Blocking Peptides