Rabbit anti-Human, Mouse MAPKAPK5 Polyclonal Antibody | anti-MAPKAPK5 antibody

Phospho-MAPKAPK5(Thr182) Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA320743	**Rabbit**	**Human, Mouse**	**ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot**

PRODUCT SYNONYMS

MAPKAPK5; Polyclonal Antibody; Phospho-MAPKAPK5(Thr182) Antibody; MAP kinase-activated protein kinase 5; MAPK-activated protein kinase 5; MAPK5_HUMAN; MAPKAP kinase 5; MAPKAPK-5; Mitogen activated protein kinase activated protein kinase 5; p38-regulated/activated protein kinase; PRAK; anti-MAPKAPK5 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-MAPKAPK5(Thr182) antibody detects endogenous levels of MAPKAPK5 only when phosphorylated at Threonine 182
Purity/Purification	From purified rabbit serum by affinity purification via sequential chromatography on phospho-and non-phospho-peptide affinity columns.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	471
Applicable Applications for anti-MAPKAPK5 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MAPKAPK5 around the phosphorylation site of Threonine 182
Subcellular Location	Cytoplasm. Nucleus. Also observed in the nucleus.
Tissue Specificity	Expressed ubiquitously.
Conjugation	Unconjugated
Epitope	Phospho Thr182
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES

IHC (Immunohistochemisry)
AAA320743 at 1/200 staining human kidney tissue sections by IHC-P. The tissue was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The tissue was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

IF (Immunofluorescence)
AAA320743 staining K562 by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) Ab, diluted at 1/600, was used as the secondary antibody.

WB (Western Blot)
Western blot analysis on K562 cell lysate using Phospho-MAPKAPK5(Thr182) Antibody, The lane on the left is treated with the antigen-specific peptide.

ADDITIONAL INFORMATION

Related Product Information for anti-MAPKAPK5 antibody	Description: The protein encoded by this gene is a member of the serine/threonine kinase family. In response to cellular stress and proinflammatory cytokines, this kinase is activated through its phosphorylation by MAP kinases including MAPK1/ERK, MAPK14/p38-alpha, and MAPK11/p38-beta. In vitro, this kinase phosphorylates heat shock protein HSP27 at its physiologically relevant sites. Two alternately spliced transcript variants of this gene encoding distinct isoforms have been reported. Function: Tumor suppressor serine/threonine-protein kinase involved in mTORC1 signaling and post-transcriptional regulation. Phosphorylates FOXO3, ERK3/MAPK6, ERK4/MAPK4, HSP27/HSPB1, p53/TP53 and RHEB. Acts as a tumor suppressor by mediating Ras-induced senescence and phosphorylating p53/TP53. Involved in post-transcriptional regulation of MYC by mediating phosphorylation of FOXO3: phosphorylation of FOXO3 leads to promote nuclear localization of FOXO3, enabling expression of miR-34b and miR-34c, 2 post-transcriptional regulators of MYC that bind to the 3'UTR of MYC transcript and prevent MYC translation. Acts as a negative regulator of mTORC1 signaling by mediating phosphorylation and inhibition of RHEB. Part of the atypical MAPK signaling via its interaction with ERK3/MAPK6 or ERK4/MAPK4: the precise role of the complex formed with ERK3/MAPK6 or ERK4/MAPK4 is still unclear, but the complex follows a complex set of phosphorylation events: upon interaction with atypical MAPK (ERK3/MAPK6 or ERK4/MAPK4), ERK3/MAPK6 (or ERK4/MAPK4) is phosphorylated and then mediates phosphorylation and activation of MAPKAPK5, which in turn phosphorylates ERK3/MAPK6 (or ERK4/MAPK4). Mediates phosphorylation of HSP27/HSPB1 in response to PKA/PRKACA stimulation, inducing F-actin rearrangement. Subunit Structure: Interacts with ERK3/MAPK6 and ERK4/MAPK4 (via FRIEDE motif); the interaction is direct (By similarity). Interacts with YWHAE; the interaction prevents phosphorylation of HSP27/HSPB1 leading to disrupt F-actin polymerization. Interacts with SQSTM1. Post-translational Modifications: Phosphorylated on Thr-182 ERK3/MAPK6 or ERK4/MAPK4; which is the regulatory phosphorylation site and is located on the T-loop/loop 12, leading to activation. Phosphorylation at Thr-182 by p38-alpha/MAPK14, p38-beta/MAPK11 is subject to debate. Phosphorylated at Ser-115 by PKA/PRKACA, leading to localization to the cytoplasm. Autophosphorylated (By similarity). Similarity: Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	21237765
NCBI GeneID	8550
NCBI Accession #	NP_003659.2
NCBI GenBank Nucleotide #	NM_003668.3
UniProt Accession #	Q8IW41; O60491; Q86X46; Q9BVX9; Q9UG86; B3KVA5

Molecular Weight	Observed: 60 kDa Predicted: 55 kDa
NCBI Official Full Name	MAP kinase-activated protein kinase 5 isoform 1
NCBI Official Synonym Full Names	mitogen-activated protein kinase-activated protein kinase 5
NCBI Official Symbol	MAPKAPK5
NCBI Official Synonym Symbols	MK5; MK-5; PRAK; MAPKAP-K5
NCBI Protein Information	MAP kinase-activated protein kinase 5
UniProt Protein Name	MAP kinase-activated protein kinase 5
UniProt Gene Name	**MAPKAPK5**
UniProt Synonym Gene Names	PRAK; MAPK-activated protein kinase 5; MAPKAP kinase 5; MAPKAP-K5; MAPKAPK-5; MK-5; MK5; PRAK

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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