

Mouse Mapkapk5 Antibody (N-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP14447a

Product Information

Application	WB, IHC-P, E
Primary Accession	O54992
Other Accession	Q8IW41 , XP_001479292.1 , NP_034895.1
Reactivity	Human, Rat, Mouse
Predicted	Bovine, Canine, Rabbit, Chicken
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB34832
Calculated MW	54152
Antigen Region	39-66

Additional Information

Gene ID	17165
Other Names	MAP kinase-activated protein kinase 5, MAPK-activated protein kinase 5, MAPKAP kinase 5, MAPKAPK-5, Mapkapk5
Target/Specificity	This Mouse Mapkapk5 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 39-66 amino acids from the N-terminal region of mouse Mapkapk5.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.05% (V/V) Proclin 300. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	Mouse Mapkapk5 Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	Mapkapk5
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.

Cellular Location

Cytoplasm. Nucleus. Note=Translocates to the cytoplasm following phosphorylation and activation. Interaction with ERK3/MAPK6 or ERK4/MAPK4 and phosphorylation at Thr-182, activates the protein kinase activity, followed by translocation to the cytoplasm Phosphorylation by PKA/PRKACA at Ser-115 also induces nuclear export

Tissue Location

Expressed ubiquitously.

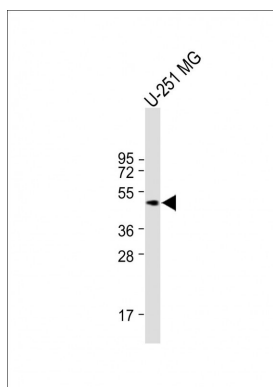
Background

Mapkapk5 mediates stress-induced small heat shock protein 27 phosphorylation (By similarity).

References

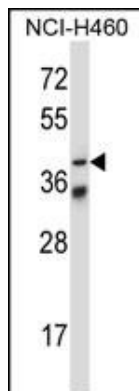
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 Gerits, N., et al. Cell. Mol. Biol. Lett. 14(4):548-574(2009)
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 Sun, P., et al. Cell 128(2):295-308(2007)
 Seternes, O.M., et al. EMBO J. 23(24):4780-4791(2004)

Images

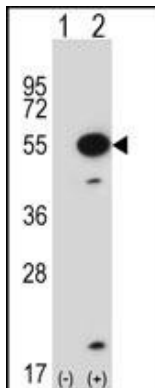


All lanes : Anti-Mouse Mapkapk5 Antibody (N-term) at 1:1000 dilution Lane 1: U-251 MG whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Mouse IgG/A/M(H/L), Peroxidase conjugated at 1/2000 dilution. Observed band size : 48kDa Blocking/Dilution buffer: 5% NFDM/TBST.

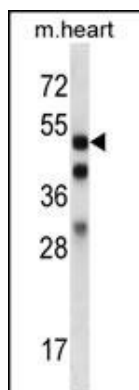
Mouse Mapkapk5 Antibody (N-term) (Cat. #AP14447a) western blot analysis in NCI-H460 cell line lysates (35ug/lane). This demonstrates the Mapkapk5 antibody



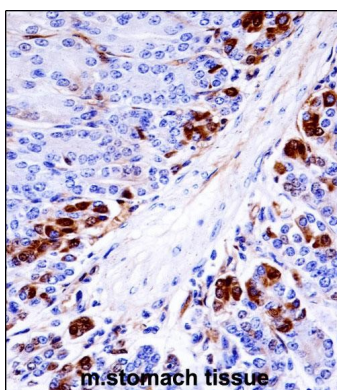
detected the Mapkapk5 protein (arrow).



Western blot analysis of Mapkapk5 (arrow) using rabbit polyclonal Mouse Mapkapk5 Antibody (N-term) (Cat. #AP14447a). 293 cell lysates (2 ug/lane) either nontransfected (Lane 1) or transiently transfected (Lane 2) with the Mapkapk5 gene.



Mouse Mapkapk5 Antibody (N-term) (Cat. #AP14447a) western blot analysis in mouse heart tissue lysates (35ug/lane). This demonstrates the Mapkapk5 antibody detected the Mapkapk5 protein (arrow).



Mouse Mapkapk5 Antibody (N-term) (AP14447a) immunohistochemistry analysis in formalin fixed and paraffin embedded mouse stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining. This data demonstrates the use of Mouse Mapkapk5 Antibody (N-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.