

Rabbit MAPKAPK-2 Polyclonal Antibody | anti-MAPKAPK-2 antibody

Phospho-MAPKAPK-2 (Thr222) Antibody

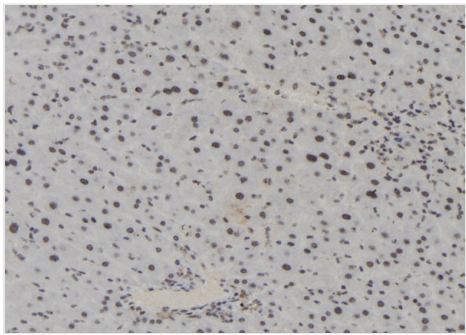
CATALOG # AAA321345	HOST Rabbit	REACTIVITY Human, Mouse, Rat	APPLICATIONS Immunohistochemistry, Western Blot
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PRODUCT SYNONYMS

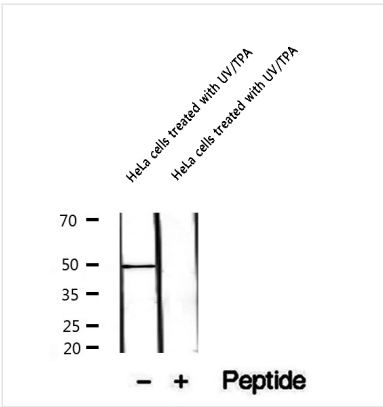
MAPKAPK-2; Polyclonal Antibody; Phospho-MAPKAPK-2 (Thr222) Antibody; MAP kinase activated protein Kinase 2; MAP kinase-activated protein kinase 2; MAPK activated protein kinase 2; MAPK-activated protein kinase 2; MAPK2_HUMAN; MAPKAP K2; MAPKAP kinase 2; MAPKAPK 2; MAPKAPK2; Mitogen activated protein kinase activated protein kinase 2; MK 2; MK2; anti-MAPKAPK-2 antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	Phospho-MAPKAPK-2 (Thr222) antibody detects endogenous levels of MAPKAPK-2.
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	370
Applicable Applications for anti-MAPKAPK-2 antibody	IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MAPKAPK-2 around the phosphorylation site of Thr222.
Subcellular Location	Cytoplasmic and Nuclear
Tissue Specificity	Expressed in all tissues examined.
Predicted Cross Reactivity	Bovine, Horse, Sheep, Rabbit, Dog, Chicken, Xenopus
Similarity	Bovine (100%), Horse (100%), Sheep (100%), Rabbit (100%), Dog (100%), Chicken (91%), Xenopus (91%)
Conjugation	Unconjugated
Epitope	Phospho Thr222
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



IHC (Immunohistochemistry)
AAA321345 at 1/100 staining Mouse liver tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample 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.



WB (Western Blot)
Western blot analysis of extracts of HeLa cells treated with UV/TPA, using Phospho-MAPKAPK-2 (Thr222) Antibody.

ADDITIONAL INFORMATION

Related Product Information for anti-MAPKAPK-2 antibody	Function: Stress-activated serine/threonine-protein kinase involved in cytokine production, endocytosis, reorganization of the cytoskeleton, cell migration, cell cycle control, chromatin remodeling, DNA damage response and transcriptional regulation. Following stress, it is phosphorylated and activated by MAP kinase p38-alpha/MAPK14, leading to phosphorylation of substrates. Phosphorylates serine in the peptide sequence, Hyd-X-R-X2-S, where Hyd is a large hydrophobic residue. Phosphorylates ALOX5, CDC25B, CDC25C, CEP131, ELAVL1, HNRNPA0, HSP27/HSPB1, KRT18, KRT20, LIMK1, LSP1, PABPC1, PARN, PDE4A, RCSD1, RPS6KA3, TAB3 and TTP/ZFP36. Phosphorylates HSF1; leading to the interaction with HSP90 proteins and inhibiting HSF1 homotrimerization, DNA-binding and transactivation activities (PubMed:16278218). Mediates phosphorylation of HSP27/HSPB1 in response to stress, leading to the dissociation of HSP27/HSPB1 from large small heat-shock protein (sHsps) oligomers and impairment of their chaperone activities and ability to protect against oxidative stress effectively. Involved in inflammatory response by regulating tumor necrosis factor (TNF) and IL6 production post-transcriptionally: acts by phosphorylating AU-rich elements (AREs)-binding proteins ELAVL1, HNRNPA0, PABPC1 and TTP/ZFP36, leading to the regulation of the stability and translation of TNF and IL6 mRNAs. Phosphorylation of TTP/ZFP36, a major post-transcriptional regulator of TNF, promotes its binding to 14-3-3 proteins and reduces its ARE mRNA affinity, leading to inhibition of dependent degradation of ARE-containing transcripts. Phosphorylates CEP131 in response to cellular stress induced by ultraviolet irradiation which promotes binding of CEP131 to 14-3-3 proteins and inhibits formation of novel centriolar satellites (PubMed:26616734). Also involved in late G2/M checkpoint following DNA damage through a process of post-transcriptional mRNA stabilization: following DNA damage, relocalizes from nucleus to cytoplasm and phosphorylates HNRNPA0 and PARN, leading to stabilization of GADD45A mRNA. Involved in toll-like receptor signaling pathway (TLR) in dendritic cells: required for acute TLR-induced macropinocytosis by phosphorylating and activating RPS6KA3. Subunit Structure: Heterodimer with p38-alpha/MAPK14; this heterodimer forms a stable complex: molecules are positioned 'face to face' so that the ATP-binding sites of both kinases are at the heterodimer interface (PubMed:12171911, PubMed:17576063, PubMed:17255097, PubMed:17480064, PubMed:17449059, PubMed:17395714). Interacts with PHC2 (PubMed:15094067). Interacts with HSF1 (PubMed:16278218). Post-translational Modifications: Sumoylation inhibits the protein kinase activity. Phosphorylated and activated by MAP kinase p38-alpha/MAPK14 at Thr-222, Ser-272 and Thr-334. Similarity: Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	10863901
NCBI GeneID	9261
NCBI Accession #	NP_004750.1
NCBI GenBank Nucleotide #	NM_004759.4
UniProt Accession #	P49137; Q5SY30; Q5SY41; Q8IYD6

Molecular Weight	Observed: 49 kDa Predicted: 46 kDa
NCBI Official Full Name	MAP kinase-activated protein kinase 2 isoform 1
NCBI Official Synonym Full Names	mitogen-activated protein kinase-activated protein kinase 2
NCBI Official Symbol	MAPKAPK2
NCBI Official Synonym Symbols	MK2; MK-2; MAPKAP-K2
NCBI Protein Information	MAP kinase-activated protein kinase 2
UniProt Protein Name	MAP kinase-activated protein kinase 2
UniProt Gene Name	MAPKAPK2
UniProt Synonym Gene Names	MAPK-activated protein kinase 2; MAPKAP kinase 2; MAPKAP-K2; MAPKAPK-2; MK-2; MK2

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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