

Anti-MAPKAPK2 / MAPKAP Kinase 2 Antibody (aa339-351)

Goat Anti Human Polyclonal Antibody

Catalog # ALS17880

Product Information

Application	WB, IHC-P, E
Primary Accession	P49137
Predicted	Human, Mouse, Rabbit, Hamster, Pig, Bovine, Horse, Guinea Pig, Dog
Host	Goat
Clonality	Polyclonal
Calculated MW	45568
Concentration (mg/ml)	0.5 mg/ml

Additional Information

Gene ID	9261
Alias Symbol	MAPKAPK2
Other Names	MAPKAPK2, MK-2, MAP KAP Kinase 2, MAPKAP kinase 2, MK2, MAPKAP-K2, MAPKAPK-2
Target/Specificity	Human MAPKAPK2 / MK2. This antibody is expected to recognize both reported isoforms (NP_004750.1; NP_116584.2).
Reconstitution & Storage	Immunoaffinity purified
Precautions	Anti-MAPKAPK2 / MAPKAP Kinase 2 Antibody (aa339-351) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	MAPKAPK2
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-X(2)-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.

Cellular Location

Cytoplasm. Nucleus. Note=Phosphorylation and subsequent activation releases the autoinhibitory helix, resulting in the export from the nucleus into the cytoplasm

Tissue Location

Expressed in all tissues examined.

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