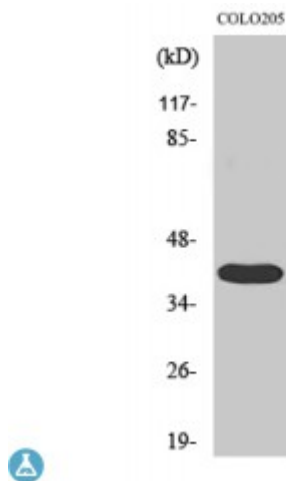


Anti-3pK antibody



Description	Rabbit polyclonal to 3pK.
Model	STJ91379
Host	Rabbit
Reactivity	Human, Mouse, Rat
Applications	ELISA, IF, IHC, WB
Immunogen	Synthesized peptide derived from human 3pK
Immunogen Region	270-350 aa, C-terminal
Gene ID	7867
Gene Symbol	MAPKAPK3
Dilution range	WB 1:500-1:2000IHC 1:100-1:300IF 1:200-1:1000ELISA 1:20000
Specificity	3pK Polyclonal Antibody detects endogenous levels of 3pK protein.
Tissue Specificity	Widely expressed, with a higher expression level observed in heart and skeletal muscle. No expression in brain. Expressed in the retinal pigment epithelium .
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Note	For Research Use Only (RUO).
Protein Name	MAP kinase-activated protein kinase 3 MAPK-activated protein kinase 3 MAPKAP kinase 3 MAPKAP-K3 MAPKAPK-3 MK-3 Chromosome 3p kinase 3pK

Molecular Weight	42 kDa
Clonality	Polyclonal
Conjugation	Unconjugated
Isotype	IgG
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Concentration	1 mg/ml
Storage Instruction	Store at -20°C, and avoid repeat freeze-thaw cycles.
Database Links	HGNC:6888OMIM:602130
Alternative Names	MAP kinase-activated protein kinase 3 MAPK-activated protein kinase 3 MAPKAP kinase 3 MAPKAP-K3 MAPKAPK-3 MK-3 Chromosome 3p kinase 3pK
Function	Stress-activated serine/threonine-protein kinase involved in cytokines production, endocytosis, cell migration, chromatin remodeling 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. MAPKAPK2 and MAPKAPK3, share the same function and substrate specificity, but MAPKAPK3 kinase activity and level in protein expression are lower compared to MAPKAPK2. Phosphorylates HSP27/HSPB1, KRT18, KRT20, RCSD1, RPS6KA3, TAB3 and TTP/ZFP36. Mediates phosphorylation of HSP27/HSPB1 in response to stress, leading to dissociate HSP27/HSPB1 from large small heat-shock protein (sHsps) oligomers and impair 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, such as TTP/ZFP36, leading to regulate 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 transcript. Involved in toll-like receptor signaling pathway (TLR) in dendritic cells: required for acute TLR-induced macropinocytosis by phosphorylating and activating RPS6KA3. Also acts as a modulator of Polycomb-mediated repression.
Cellular Localization	Nucleus Cytoplasm. Predominantly located in the nucleus, when activated it translocates to the cytoplasm.
Post-translational Modifications	Phosphorylated and activated by MAPK1/ERK2 and MAPK3/ERK1. Phosphorylated and activated by MAP kinase p38-alpha/MAPK14 at Thr-201, Ser-251 and Thr-313 .