

Rabbit MAPK3 Polyclonal Antibody | anti-MAPK3 antibody

MAPK3 Antibody

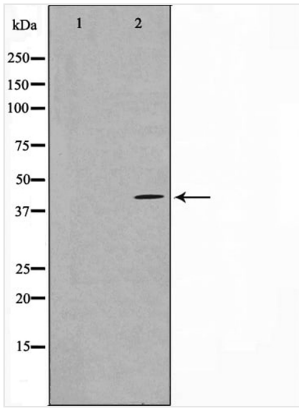
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA321103	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

MAPK3; Polyclonal Antibody; MAPK3 Antibody; 3pK; anti MAPKAPK3; Chromosome 3p kinase; EC 2.7.11.1; MAP kinase-activated protein kinase 3; MAPK activated protein kinase 3; MAPK-activated protein kinase 3; MAPK3_HUMAN; MAPKAP; MAPKAP kinase 3; MAPKAP-K3; MAPKAP3; MAPKAPK 3; MAPKAPK-3; Mapkapk3; MAPKAPK3 antibody; Mitogen activated protein kinase activated protein kinase 3; Mitogen activated protein kinase activated protein kinase; MK-3; anti-MAPK3 antibody

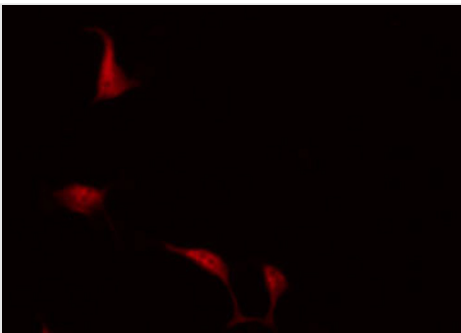
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	MAPK3 antibody detects endogenous levels of MAPK3
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
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	382
Applicable Applications for anti-MAPK3 antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human MAPK3
Subcellular Location	Nucleus. Cytoplasm. Predominantly located in the nucleus, when activated it translocates to the cytoplasm.
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 (PubMed:26744326).
Predicted Cross Reactivity	Pig, Bovine, Horse, Sheep, Rabbit, Dog, Chicken
Similarity	Pig (100%), Bovine (91%), Horse (100%), Sheep (91%), Rabbit (100%), Dog (91%), Chicken (100%)
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.



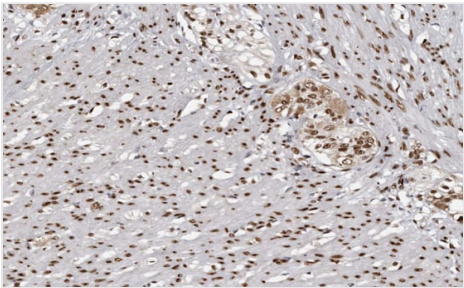
WB (Western Blot)

Western blot analysis on COLO205 cell lysate using MAPK3 Antibody, The lane on the left is treated with the antigen-specific peptide.



IF (Immunofluorescence)

AAA321103 staining COLO205 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.



IHC (Immunohistochemistry)

AAA321103 at 1/100 staining human Smooth muscle 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.

ADDITIONAL INFORMATION

Related Product Information for anti-MAPK3 antibody	Description: This gene encodes a member of the Ser/Thr protein kinase family. This kinase functions as a mitogen-activated protein kinase (MAP kinase)-activated protein kinase. MAP kinases are also known as extracellular signal-regulated kinases (ERKs), act as an integration point for multiple biochemical signals. This kinase was shown to be activated by growth inducers and stress stimulation of cells. In vitro studies demonstrated that ERK, p38 MAP kinase and Jun N-terminal kinase were all able to phosphorylate and activate this kinase, which suggested the role of this kinase as an integrative element of signaling in both mitogen and stress responses. This kinase was reported to interact with, phosphorylate and repress the activity of E47, which is a basic helix-loop-helix transcription factor known to be involved in the regulation of tissue-specific gene expression and cell differentiation. 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-X2-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. Subunit Structure: Heterodimer with p38-alpha/MAPK14. The heterodimer with p38-alpha/MAPK14 forms a stable complex: molecules are positioned 'face to face' so that the ATP-binding sites of both kinases are at the heterodimer interface (By similarity). Interacts with TCF3 and with polycomb proteins, such as PCH2 and BMI1/PCGF4. 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 (By similarity). Similarity: Belongs to the protein kinase superfamily. CAMK Ser/Thr protein kinase family.
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NCBI AND UNIPROT INFORMATION

NCBI GI #	345441756
NCBI GeneID	7867
NCBI Accession #	NP_001230854.1
NCBI GenBank Nucleotide #	NM_001243925.1
UniProt Accession #	Q16644; B5BU67
Molecular Weight	Observed: 42 kDa Predicted: 43 kDa
NCBI Official Full Name	MAP kinase-activated protein kinase 3
NCBI Official Synonym Full Names	mitogen-activated protein kinase-activated protein kinase 3
NCBI Official Symbol	MAPKAPK3
NCBI Official Synonym Symbols	3PK; MK-3; MDPT3; MAPKAP3; MAPKAP-K3; MAPKAPK-3
NCBI Protein Information	MAP kinase-activated protein kinase 3
UniProt Protein Name	MAP kinase-activated protein kinase 3
UniProt Gene Name	MAPKAPK3
UniProt Synonym Gene Names	MAPK-activated protein kinase 3; MAPKAP kinase 3; MAPKAP-K3; MAPKAPK-3; MK-3; 3pk

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.

