

MAPKAPK3 recombinant protein

Recombinant MAPKAPK3 protein

CATALOG #
AAA60237

HOST
Baculovirus

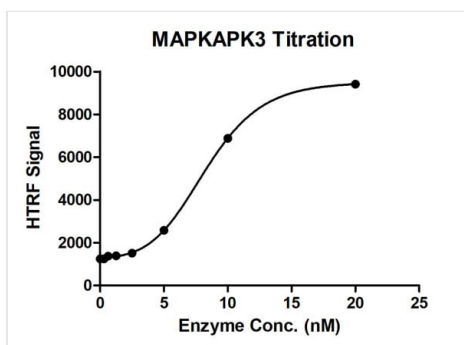
PRODUCT SYNONYMS

MAPKAPK3; Recombinant MAPKAPK3 protein; MAPK Activated Protein Kinase 3; MK-3; Mitogen-Activated Protein Kinase-Activated Protein Kinase 3; MAPKAPK3 recombinant protein

PRODUCT SPECIFICATIONS

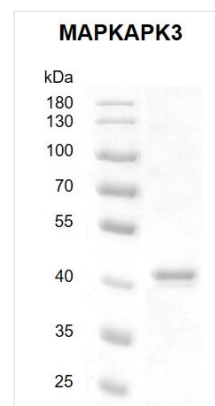
Host	Baculovirus
Form/Format	Recombinant MAPKAPK3 protein is supplied in 25mM HEPES-NaOH pH7.5, 300mM NaCl, 10% glycerol, 0.04% Triton X-100, and 0.5mM TCEP.
Protein Species	Human
Tag	DYKDDDDK-Tag
Protein Details	Recombinant MAPKAPK3 protein was expressed in baculovirus expression system as the full length protein (accession number NP_001230854.1) with a N-terminal DYKDDDDK tag.
Notes	This product was manufactured as described in Protein Details. Where possible, We has developed functional or activity assays for recombinant proteins. Additional characterization such as enzyme kinetic activity assays, inhibitor screening or other biological activity assays may not have been performed for every product. All available data for a given product is shown on the lot-specific Technical Data Sheet.
Dry Ice Note	The product may be shipped with dry ice, and an additional fee may be added to your shipping cost.
Preparation and Storage	Recombinant proteins in solution are temperature sensitive and must be stored at -80 degree C to prevent degradation. Avoid repeated freeze/thaw cycles and keep on ice when not in storage. Shipping Temp: Dry Ice

IMAGES



Application Data

HTRF assay for MAPKAPK3 activity 1 uM STK S1 substrate was incubated with different concentrations of MAPKAPK3 protein in a 10 ul reaction system containing 1×Enzymatic Buffer, 5 mM MgCl₂, 1 mM DTT, and 100 uM ATP for 1 hour. Then 10 mul detection reagents containing STK antibody (1:2) and SA-XL665 (1:100) diluted with 1× Detection Buffer were added and incubated with the reactions for 30 min. All the operations and reactions were performed at room temperature. HTRF assay was used for detection.



SDS-PAGE

Recombinant MAPKAPK3 protein 10% SDS-PAGE with Coomassie blue staining MW: 44 kDa Purity: >90%

ADDITIONAL INFORMATION

Related Product Information for MAPKAPK3 recombinant protein	Background: MAPKAPK3 (MAPK Activated Protein Kinase 3) is a mitogen-activated protein kinase (MAP kinase)-activated protein kinase which 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, which leading to phosphorylation of substrates. MAPKAPK3 phosphorylates serine in the peptide sequence, Hyd-X-RX(2)-S, where Hyd is a large hydrophobic residue and 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. It 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, and promotes its binding to 14-3-3 proteins and reduces its ARE mRNA affinity leading to inhibition of dependent degradation of ARE-containing transcript. It involved in toll-like receptor signaling pathway (TLR) in dendritic cells: required for acute TLR-induced macropinocytosis by phosphorylating and activating RPS6KA3 and also acts as a modulator of Polycomb-mediated repression. Diseases associated with MAPKAPK3 include Macular Dystrophy, Patterned, 3 and Bacteremia 2.
Product Categories/Family for MAPKAPK3 recombinant protein	Recombinant Proteins; Kinase

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	42,987 Da
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; MAPKAP3; MAPKAP-K3; MAPKAPK-3
NCBI Protein Information	MAP kinase-activated protein kinase 3; MAPKAP kinase 3; chromosome 3p kinase; MAPK-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
UniProt Entry Name	MAPK3_HUMAN

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.