Recombinant MAPK3 protein (His tag)

Catalog Number	542753
Synonyms	MAPK-activated protein kinase 3; MAPKAP kinase 3; MAPKAP-K3; MAPKAPK-3; MK-3; Chromosome 3p kinase; 3pK
Species	Human
Expression System	E. coli
Accession	Q16644
Molecular Weight	Predictes a molecular mass of 41.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 43 kDa band.

Product Information

Sequence Region	32-382
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 32-382 aa (Q16644) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human MAPKAPK3 Protein Fragment (32-382) – a high-purity, functional fragment designed for studying stress-activated kinase signaling pathways. This product encompasses the complete protein kinase domain (44-304), making it an ideal tool for investigating phosphorylation events, substrate interactions, and cytokine regulation in cellular stress responses. MAPKAPK3 is a stress-activated serine/threonine-protein kinase that plays critical roles in cytokine production, cell migration, chromatin remodeling, and transcriptional regulation. Activated by p38-alpha/MAPK14 under stress conditions, it phosphorylates key substrates including HSP27, TTP/ZFP36, and RPS6KA3 to modulate inflammatory responses, mRNA stability, and macropinocytosis. The kinase regulates TNF and IL6 production post-transcriptionally by phosphorylating ARE-binding proteins and participates in TLR signaling pathways. Predominantly nuclear in localization, MAPKAPK3 translocates to the cytoplasm upon activation, reflecting its dynamic role in stress signaling cascades. While sharing functional overlap with MAPKAPK2, MAPKAPK3 exhibits distinct expression levels and kinase activity profiles.