Recombinant MK15 protein (His tag)

Catalog Number	545526
Synonyms	MAP kinase 15; MAPK 15; Extracellular signal-regulated kinase 7; ERK-7; Extracellular signal-regulated kinase 8; ERK-8
Species	Human
Expression System	E. coli
Accession	Q8TD08
Molecular Weight	Predictes a molecular mass of 41.09 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-346
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-346 aa (Q8TD08) 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 Mitogen-activated protein kinase 15 (MAPK15) fragment (residues 1-346) is a high-purity protein designed for investigating kinase-dependent cellular processes. This fragment fully encompasses the functional protein kinase domain, making it an ideal tool for studying MAPK15's roles in autophagy, ciliogenesis, protein trafficking, and genome integrity. MAPK15 is an atypical MAPK protein that regulates multiple cellular processes in a kinase activity-dependent manner, including basal and starvation-induced autophagy through interactions with GABARAP, MAP1LC3B, and GABARAPL1, leading to autophagosome formation. It controls primary cilium formation and ciliary protein localization, regulates transitional endoplasmic reticulum site disassembly during amino-acid starvation, and maintains genomic integrity by binding chromatin and interacting with PCNA. MAPK15 also modulates DA transporter activity via RhoA activation and phosphorylates ELAVL1 in response to oxidative stress. The protein localizes to multiple cellular compartments including cytoplasm, cytoskeleton, cilium basal body, tight junctions, centrosome, autophagosomes, Golgi apparatus, and nucleus, with nuclear translocation occurring upon activation. During oocyte maturation, it plays crucial roles in microtubule organization and meiotic cell cycle progression.