Recombinant MP2K5 protein (His tag)

Catalog Number	542615
Synonyms	MAP kinase kinase 5; MAPKK 5; MAPK/ERK kinase 5; MEK 5
Species	Human
Expression System	E. coli
Accession	Q13163
Molecular Weight	Predictes a molecular mass of 34.11 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	161-448
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 161-448 aa (Q13163) 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	Introducing the recombinant human MAP2K5 protein fragment (residues 161-448), a high-purity tool designed for studying the kinase activity and signaling functions of Dual specificity mitogen-activated protein kinase kinase 5 (MEK5). This fragment fully encompasses the protein kinase domain, making it ideal for investigating MAPK/ERK pathway mechanisms, stress response, and cellular survival pathways in experimental settings. Dual specificity mitogen-activated protein kinase kinase 5 (MAP2K5) acts as a critical scaffold in the MAPK/ERK signaling pathway, facilitating the formation of a ternary complex with MAP3K2/MAP3K3 and MAPK7. This pathway plays an essential role in protecting cells from stress-induced apoptosis, supporting neuronal survival, and regulating cardiac development and angiogenesis. Evidence indicates that MAP2K5 negatively regulates apoptosis in cardiomyocytes by promoting STUB1/CHIP-mediated ubiquitination and degradation of ICER-type CREM isoforms, underscoring its importance in cellular protection and developmental processes. The provided fragment enables focused analysis of these kinase-dependent functions.