Recombinant MK08 protein (His tag)

Catalog Number	546992
Synonyms	MAP kinase 8; MAPK 8; JNK-46; Stress-activated protein kinase 1c; SAPK1c; Stress-activated protein kinase JNK1; c-Jun N-terminal kinase 1
Species	Human
Expression System	E. coli
Accession	P45983
Molecular Weight	Predictes a molecular mass of 44.08 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 45 kDa band.

Product Information

Sequence Region	1-367
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 1-367 aa (P45983) 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 8 (MAPK8/JNK1) Fragment (aa 1-367) - A high-purity protein kinase domain fragment essential for studying stress-activated signaling pathways, cell proliferation, differentiation, and programmed cell death mechanisms. MAPK8 (JNK1) is a crucial serine/threonine-protein kinase that mediates cellular responses to stress signals, pro-inflammatory cytokines, and various extracellular stimuli through the SAP/JNK signaling pathway. This kinase phosphorylates key transcription factors like JUN and ATF2 to regulate AP-1 transcriptional activity, and plays significant roles in apoptosis by targeting p53/TP53 and YAP1, autophagy through BCL2 phosphorylation, and inflammasome assembly via NLRP3 phosphorylation. It is involved in diverse processes including T-cell differentiation, erythroid cell survival, neurite elongation, and circadian clock regulation. The full-length protein localizes to both the cytoplasm and nucleus, with synaptic presence in neurons, and our recombinant fragment (aa 1-367) encompasses the complete protein kinase domain (aa 26-321), making it an ideal tool for investigating kinase-specific functions and signaling mechanisms.