Recombinant MARK3 protein (His tag)

Catalog Number	546880
Synonyms	C-TAK1; cTAK1; Cdc25C-associated protein kinase 1; ELKL motif kinase 2; EMK-2; Protein kinase STK10; Ser/Thr protein kinase PAR-1; Par-1a; Serine/threonine-protein kinase p78
Species	Human
Expression System	E. coli
Accession	P27448
Molecular Weight	Predictes a molecular mass of 38.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	51-367
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>88%, 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 51-367 aa (P27448) 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 MARK3 Protein Kinase Fragment (aa 51-367) – a high-purity, functionally active protein fragment encompassing the complete catalytic kinase and UBA domains. This product is engineered for researchers studying microtubule regulation, cell signaling pathways, and kinase-substrate interactions, providing a targeted tool for domain-specific functional analysis. MARK3 (MAP/microtubule affinity-regulating kinase 3) is a serine/threonine-protein kinase that phosphorylates microtubule-associated proteins including MAPT/TAU, CDC25C, HDAC7, and MITF, thereby regulating microtubule dynamics, cell cycle progression, and transcription factor localization. It localizes to the cell membrane, cytoplasm, and dendritic projections, where it participates in critical signaling networks such as the Hippo pathway through interactions with DLG5 and STK3/MST2. MARK3's phosphorylation activities influence histone deacetylase nuclear export, MITF cytosolic retention, and LATS1 kinase inhibition, highlighting its broad role in cellular organization and signaling cascades.