Recombinant MAK2 protein (His tag)

Catalog Number	531213
Synonyms	MAPK-activated protein kinase mak-2
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q965G5
Gene ID	176914
Molecular Weight	Predictes a molecular mass of 43.20 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 46 kDa band.

Product Information

Sequence Region	1-366
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 1-366 aa (Q965G5) 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 MAP kinase-activated protein kinase mak-2 (MAPKAPK mak-2) fragment from Caenorhabditis elegans, encompassing the complete protein kinase domain (residues 1-366). This high-purity fragment serves as an essential tool for investigating kinase activity, synaptic maintenance, and axon regeneration mechanisms in neurological research. MAPKAPK mak-2 is a serine/threonine-protein kinase crucial for maintaining synapse and axon morphology, as well as promoting touch neuron axon regeneration following injury. It functions downstream of the DLK-1, MKK-4, and PMK-3 signaling cascade by regulating cebp-1 mRNA stability. Additionally, it contributes to body wall muscle contraction and the formation of muscle arm extensions connecting body wall muscles to motor axons. The protein localizes to the perikaryon, nucleus, and synapses, where it colocalizes with synaptic markers like snb-1 and partially with cebp-1, underscoring its role in neuronal and muscular integrity.