Recombinant MAX2 protein (His tag)

Catalog Number	530860
Synonyms	Motor axon guidance protein 2; p21-activated kinase
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EGQ3
Gene ID	3565400
Molecular Weight	Predictes a molecular mass of 34.92 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	353-646
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 353-646 aa (G5EGQ3) 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 Serine/threonine-protein kinase max-2 (EC 2.7.11.1) fragment (residues 353-646) from Caenorhabditis elegans, encompassing the complete protein kinase domain. This high-purity fragment is an essential tool for investigating kinase activity, neuronal guidance mechanisms, and stress response pathways in research applications. The full-length Serine/threonine-protein kinase max-2 (p21-activated kinase) is a key regulatory enzyme involved in multiple biological processes. It phosphorylates mlk-1 and activates the mlk-1/mek-1/kgb-1 pathway in response to heavy metal stress. In neuronal development, it guides dorsal axon guidance in motoneurons downstream of unc-5 receptor and Rho GTPases, while redundantly regulating HSN neuron axonal growth with mig-10. Additionally, it collaborates with pak-1 in neuroblast migration, gonad elongation guidance, and potentially spermatogenesis, and with pak-2 in embryogenesis. The protein localizes to the perikaryon, dendrites, and cytoplasm, underscoring its role in cellular signaling and structural organization.