Recombinant E2AKB protein (His tag)

Catalog Number	531919
Synonyms	General control nonderepressible kinase 2
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	D0Z5N4
Gene ID	174953
Molecular Weight	Predictes a molecular mass of 17.56 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	1-138
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 1-138 aa (D0Z5N4) 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 fragment of Eukaryotic translation initiation factor 2-alpha kinase gcn-2 (EC 2.7.11.1) from Caenorhabditis elegans, encompassing amino acids 1-138 with complete RWD domain coverage. This high-quality protein fragment serves as an essential tool for investigating domain-specific functions in cellular stress response pathways. Eukaryotic translation initiation factor 2-alpha kinase gcn-2 is a serine/threonine-protein kinase that phosphorylates the alpha subunit of eukaryotic translation-initiation factor 2 (eIF2alpha), leading to its inactivation and subsequent reduction of translational initiation. This kinase plays a crucial role in the unfolded protein response triggered by various stresses including mitochondrial, osmotic, oxidative, amino acid deprivation, and UV irradiation. It is involved in hypoxia-mediated adaptive protective responses and is required for maintaining lifespan during amino acid starvation. The kinase also facilitates selective translation/transcription of specific mRNAs such as atf-5, pha-4, and gpdh-1 as part of the unfolded protein response mechanism.