Recombinant PP2A protein (His tag)

Catalog Number	531951
Synonyms	PP2A
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EGK8
Gene ID	178117
Molecular Weight	Predictes a molecular mass of 37.96 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 40 kDa band.

Product Information

Sequence Region	1-318
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 1-318 aa (G5EGK8) 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 phosphatase 2A catalytic subunit (PP2A) from Caenorhabditis elegans (residues 1-318) is a high-purity, stable fragment ideal for investigating phosphatase activity, cell division mechanisms, and signaling pathways in biochemical and structural studies. The full-length PP2A, encoded by the let-92 gene, is an essential protein phosphatase that regulates early embryonic cell division by promoting centriole duplication through stabilization of SAS-5 and ZYG-1 proteins. It also facilitates vulva development via LET-60/Ras-MAP kinase signaling and ensures mitotic spindle assembly by stabilizing kinetochore microtubules. Additionally, PP2A negatively modulates axon guidance by dephosphorylating UNC-51, UNC-14, and VAB-8. Subcellularly, it localizes to the perikaryon, axons, centrosomes, and cytoplasm, with enrichment in growth cones and transport vesicles, underscoring its roles in cytoskeletal organization and cellular signaling.