Recombinant PLCB protein (His tag)

Catalog Number	533049
Synonyms	Egg-laying defective protein 8; Phosphoinositide phospholipase C-beta egl-8; Phospholipase C-beta egl-8; PLC-beta egl-8
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	G5EBH0
Gene ID	178537
Molecular Weight	Predictes a molecular mass of 35.86 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 36 kDa band.

Product Information

Sequence Region	749-1053
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>86%, 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 749-1053 aa (G5EBH0) 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 the 1-phosphatidylinositol 4,5-bisphosphate phosphodiesterase beta egl-8 (PLC-beta egl-8) from Caenorhabditis elegans, encompassing amino acids 749-1053. This fragment contains the complete PI-PLC Y-box and C2 functional domains, making it an ideal tool for investigating domain-specific mechanisms in intracellular signaling and neuronal regulation. The full-length EGL-8 protein is a phosphoinositide-specific phospholipase C that catalyzes the hydrolysis of phosphatidylinositol 4,5-bisphosphate to generate the key second messengers diacylglycerol (DAG) and inositol 1,4,5-trisphosphate (IP3). These molecules regulate intracellular calcium signaling and protein kinase C activation, impacting diverse physiological processes. EGL-8 modulates synaptic transmission at neuromuscular junctions by regulating acetylcholine release, influencing locomotion. It is essential for efficient egg laying, defecation, male mating behavior, avoidance responses to mechanical stimuli, antimicrobial peptide expression during fungal infection, and axon regeneration. Subcellularly, it localizes to neuronal somas, axons, synapses, and intestinal adherens junctions, underscoring its role in cell signaling and structural coordination.