Recombinant PLPHP protein (His tag)

Catalog Number	536697
Synonyms	PLP homeostasis protein
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	P52057
Gene ID	173906
Molecular Weight	Predictes a molecular mass of 28.85 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 30 kDa band.

Product Information

Sequence Region	1-244
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 1-244 aa (P52057) 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 Pyridoxal phosphate homeostasis protein (PLP homeostasis protein) from Caenorhabditis elegans, encompassing residues 1-244. This fragment is optimized for stability and solubility, ideal for structural studies and biochemical assays investigating vitamin B6 metabolism. The full-length Pyridoxal phosphate homeostasis protein functions as a pyridoxal 5'-phosphate (PLP)-binding protein, playing a critical role in the intracellular homeostatic regulation of PLP, the active form of vitamin B6. This regulation is essential for maintaining proper cellular levels of PLP, a vital cofactor involved in numerous enzymatic reactions, including amino acid metabolism, neurotransmitter synthesis, and one-carbon metabolism. The protein's activity supports fundamental cellular processes by ensuring the availability and balance of this key coenzyme.