Recombinant PLPHP protein (His tag)

Catalog Number	548660
Synonyms	PLP homeostasis protein; Proline synthase co-transcribed bacterial homolog protein; Pyridoxal phosphate-binding protein
Species	Human
Expression System	E. coli
Accession	O94903
Molecular Weight	Predictes a molecular mass of 32.00 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 32 kDa band.

Product Information

Sequence Region	1-275
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 1-275 aa (O94903) 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 Human Pyridoxal phosphate homeostasis protein (PLPBP) fragment (residues 1-275) is a high-purity, stable protein designed for structural and biochemical studies. This fragment encompasses the full-length functional domain, offering researchers a soluble and well-folded unit to investigate PLP homeostasis mechanisms and vitamin B6 metabolism. The full-length Pyridoxal phosphate homeostasis protein (PLPBP) in humans is a pyridoxal 5'-phosphate (PLP)-binding protein implicated in the intracellular homeostatic regulation of PLP, the active cofactor form of vitamin B6. PLP is essential for numerous enzymatic reactions, including amino acid metabolism, and its proper regulation is critical for cellular function. This protein helps maintain PLP levels, potentially preventing deficiency or toxicity, and has been linked to vitamin B6-dependent processes, as supported by scientific evidence (e.g., PubMed:27912044). The subcellular location is not specified in the provided data, but its role in PLP homeostasis suggests involvement in cytoplasmic or organellar compartments where vitamin B6 metabolism occurs.