Recombinant HPPD protein (His tag)

Catalog Number	534831
Synonyms	4-hydroxyphenylpyruvic acid oxidase; 4HPPD; HPD; HPPDase
Species	Caenorhabditis elegans
Expression System	E. coli
Accession	Q22633
Gene ID	176473
Molecular Weight	Predictes a molecular mass of 46.04 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 48 kDa band.

Product Information

Sequence Region	1-393
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 1-393 aa (Q22633) 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 4-hydroxyphenylpyruvate dioxygenase (4HPPD) fragment from Caenorhabditis elegans, encompassing the full-length protein (residues 1-393) with complete VOC 1 and VOC 2 functional domains. This high-purity fragment serves as an essential tool for investigating tyrosine degradation pathways and domain-specific enzymatic functions. 4-hydroxyphenylpyruvate dioxygenase (EC 1.13.11.27) is a key enzyme in tyrosine degradation, catalyzing the conversion of 4-hydroxyphenylpyruvate to homogentisate. This reaction represents a critical step in phenylalanine and tyrosine catabolism, with implications for understanding metabolic disorders and developing therapeutic interventions. The enzyme's function has been experimentally validated through published research (PubMed:18227072), establishing its significance in fundamental biochemical pathways.