Recombinant DPH6 protein (His tag)

Catalog Number	549256
Synonyms	ATP-binding domain-containing protein 4; Diphthamide synthase; Diphthamide synthetase; Protein DPH6 homolog
Species	Human
Expression System	E. coli
Accession	Q7L8W6
Molecular Weight	Predictes a molecular mass of 31.96 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 34 kDa band.

Product Information

Sequence Region	1-267
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 1-267 aa (Q7L8W6) 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 Diphthine--ammonia ligase (DPH6) fragment (residues 1-267) is a high-purity protein designed for structural and biochemical studies. This fragment represents a stable and soluble domain of the enzyme, ideal for investigating its role in diphthamide biosynthesis and related cellular processes. Diphthine--ammonia ligase, encoded by the DPH6 gene in Homo sapiens, is an amidase that catalyzes the final step of diphthamide biosynthesis using ammonium and ATP. Diphthamide is a post-translationally modified histidine residue in the translation elongation factor EEF2, essential for cellular function. This enzyme's activity is critical for the proper modification of EEF2, highlighting its importance in protein synthesis and cellular regulation. The provided fragment encompasses a functional domain, enabling focused research on its catalytic mechanisms and interactions.