Recombinant DCUP protein (His tag)

Catalog Number	542030
Synonyms	UPD; URO-D
Species	Human
Expression System	E. coli
Accession	P06132
Molecular Weight	Predictes a molecular mass of 42.45 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 42 kDa band.

Product Information

Sequence Region	1-367
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 1-367 aa (P06132) 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 Uroporphyrinogen Decarboxylase (UPD) Fragment (1-367) is a high-quality, soluble protein derived from human UROD, designed for structural and functional studies. This fragment retains the catalytic activity essential for the decarboxylation of uroporphyrinogen in the heme biosynthesis pathway, providing researchers with a stable and reliable tool for biochemical and structural analysis. Uroporphyrinogen decarboxylase (UPD), encoded by the UROD gene in humans, is a critical enzyme in the heme biosynthetic pathway. It catalyzes the sequential decarboxylation of the four acetate side chains of uroporphyrinogen to form coproporphyrinogen, with coproporphyrinogen III being the only isomer that can ultimately be converted to heme. The enzyme is localized in the cytoplasm and cytosol, where it facilitates the fifth step in heme production, a process vital for oxygen transport and cellular metabolism. This recombinant fragment (1-367) encompasses the full functional domain, enabling detailed investigation into its enzymatic mechanisms and role in porphyrin metabolism.