Recombinant HEM2 protein (His tag)

Catalog Number	537530
Synonyms	ALADH; Porphobilinogen synthase
Species	Human
Expression System	E. coli
Accession	P13716
Molecular Weight	Predictes a molecular mass of 37.95 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 38 kDa band.

Product Information

Sequence Region	1-330
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, 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 1-330 aa (P13716) 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	Introducing the recombinant Delta-aminolevulinic acid dehydratase (ALADH) fragment (residues 1-330), a high-purity protein designed for structural and biochemical studies. This fragment, derived from human ALADH, retains key functional regions and offers exceptional solubility and stability, making it an ideal tool for investigating tetrapyrrole biosynthesis mechanisms. Delta-aminolevulinic acid dehydratase (ALADH), also known as porphobilinogen synthase (EC 4.2.1.24), is a crucial enzyme in tetrapyrrole biosynthesis. It catalyzes the condensation of two 5-aminolevulinate molecules to form porphobilinogen, an essential precursor in heme and chlorophyll production. Located in the cytosol, ALADH's activity is vital for cellular energy metabolism and pigment synthesis, with implications in porphyria research and metabolic studies. The provided fragment encompasses the full functional domain (residues 1-330), ensuring relevance to native enzyme behavior while optimizing experimental utility.