Recombinant Human HMBS protein, His-tagged

Cat. No. HMBS-39H **Lot. No.** (See product label)

SPECIFICATION

Product Overview	Recombinant Human HMBS(Ser2-His361) fused with His tag at C-terminal was expressed in HEK293.
Species	Human
Source	HEK293
ProteinLength	2-361 a.a.
Description	Porphobilinogen Deaminase (HMBS) is a member of the HMBS family. PBGD is the third enzyme of the heme biosynthetic pathway and catalyzes the head to tail condensation of four porphobilinogen molecules into the linear hydroxymethylbilane. HMBS is involved in the production of heme, which is important for all of the body's organs, although it is most abundant in the blood, bone marrow, and liver. In addition, Heme is an essential component of iron-containing proteins called hemoproteins, including hemoglobin. Defects in PBGD are the cause of acute intermittent porphyria.
Form	Lyophilized from a 0.2 μm filtered solution of 20mM PB,150mM NaCl,pH7.4.
AA Sequence	SGNGNAAATAEENSPKMRVIRVGTRKSQLARIQTDSVVATLKASYPGLQFEIIAMSTT GDKILDT ALSKIGEKSLFTKELEHALEKNEVDLVVHSLKDLPTVLPPGFTIGAICKREN PHDAVVFHPKFVG KTLETLPEKSVVGTSSLRRAAQLQRKFPHLEFRSIRGNLNTRLR KLDEQQEFSAIILATAGLQRM GWHNRVGQILHPEECMYAVGQGALGVEVRAKDQDI LDLVGVLHDPETLLRCIAERAFLRHLEGGC SVPVAVHTAMKDGQLYLTGGVWSLDG SDSIQETMQATIHVPAQHEDGPEDDPQLVGITARNIPRG PQLAAQNLGISLANLLLSK

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	GAKNILDVARQLNDAHVDHHHHHH
Endotoxin	Less than 0.1 ng/ɡ (1 IEU/ɡ) as determined by LAL test.
Purity	Greater than 95% as determined by reducing SDS-PAGE.
Storage	Lyophilized protein should be stored at < -20 centigrade, though stable at room temperature for 3 weeks.Reconstituted protein solution can be stored at 4-7 centigrade for 2-7 days.Aliquots of reconstituted samples are stable at < -20 centigrade for 3 months.
Reconstitution	Always centrifuge tubes before opening. Do not mix by vortex or pipetting.It is not recommended to reconstitute to a concentration less than 100 µg/ml.Dissolve the lyophilized protein in ddH2O.Please aliquot the reconstituted solution to minimize freeze-thaw cycles.

GENE INFORMATION

Gene Name	HMBS hydroxymethylbilane synthase [Homo sapiens]
Official Symbol	HMBS
Synonyms	HMBS; hydroxymethylbilane synthase; PBGD, PORC, porphobilinogen deaminase , porphyria, acute; Chester type , UPS, uroporphyrinogen I synthase; porphobilinogen deaminase; uroporphyrinogen I synthase; pre-uroporphyrinogen synthase; uroporphyrinogen I synthetase; porphyria, acute; Chester type; UPS; PBGD; PORC; PBG-D;
Gene ID	3145
mRNA Refseq	NM_000190

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Protein Refseq	NP_000181
MIM	609806
UniProt ID	P08397
Chromosome Location	11q23.2-qter
Pathway	Heme Biosynthesis, organism-specific biosystem; Heme biosynthesis, organism-specific biosystem; Metabolic pathways, organism-specific biosystem; Metabolism, organism-specific biosystem; Metabolism of porphyrins, organism-specific biosystem; Porphyrin and chlorophyll metabolism, organism-specific biosystem; Porphyrin and chlorophyll metabolism, conserved biosystem;
Function	amine binding; carboxylic acid binding; coenzyme binding; hydroxymethylbilane synthase activity; hydroxymethylbilane synthase activity; transferase activity; uroporphyrinogen-III synthase activity;

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