

HMBS/Porphobilinogen deaminase Protein, Human (HEK293, His, solution)

Cat. No.:	HY-P70269Y
Synonyms:	rHuPorphobilinogen deaminase/HMBS, His; Porphobilinogen Deaminase; PBG-D; Hydroxymethylbilane Synthase; HMBS; Pre-Uroporphyrinogen Synthase; HMBS; PBGD; UPS
Species:	Human
Source:	HEK293
Accession:	P08397 (S2-H361)
Gene ID:	3145
Molecular Weight:	Approximately 47.0 kDa

PROPERTIES

AA Sequence	S G N G N A A A T A E E N S P K M R V I R V G T R K S Q L A R I Q T D S V V A T L K A S Y P G L Q F E I I A M S T T G D K I L D T A L S K I G E K S L F T K E L E H A L E K N E V D L V V H S L K D L P T V L P P G F T I G A I C K R E N P H D A V V F H P K F V G K T L E T L P E K S V V G T S S L R R A A Q L Q R K F P H L E F R S I R G N L N T R L R K L D E Q Q E F S A I I L A T A G L Q R M G W H N R V G Q I L H P E E C M Y A V G Q G A L G V E V R A K D Q D I L D L V G V L H D P E T L L R C I A E R A F L R H L E G G C S V P V A V H T A M K D G Q L Y L T G G V W S L D G S D S I Q E T M Q A T I H V P A Q H E D G P E D D P Q L V G I T A R N I P R G P Q L A A Q N L G I S L A N L L L S K G A K N I L D V A R Q L N D A H
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Solution.
Formulation	Supplied as a 0.2 µm filtered solution of 20 mM PB, 150 mM NaCl, 5% Trehalose, 5% mannitol, 50% Glycerol, 0.1% Tween80, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconstitution	N/A.
Storage & Stability	Stored at -80°C for 1 year. It is stable at -20°C for 3 months after opening. It is recommended to freeze aliquots at -80°C for extended storage. Avoid repeated freeze-thaw cycles.
Shipping	Shipping with dry ice

DESCRIPTION

Background	HMBS, also known as Porphobilinogen deaminase, plays a crucial role in the heme biosynthetic pathway by catalyzing the
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sequential polymerization of four molecules of porphobilinogen, leading to the formation of hydroxymethylbilane, also referred to as preuroporphyrinogen. The catalytic process initiates with the assembly of the dipyrromethane cofactor, derived either from two molecules of porphobilinogen or from preuroporphyrinogen, by the apoenzyme. This covalently linked cofactor serves as a primer, facilitating the assembly of the tetrapyrrole product. In the final step of catalysis, the product preuroporphyrinogen is released, leaving the intact cofactor bound to the holodeaminase. This enzymatic activity is pivotal for the synthesis of heme, a crucial component with diverse biological functions.

Caution: Product has not been fully validated for medical applications. For research use only.

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