UROIIIS Protein, Human (His)

Cat. No.:	HY-P71105
Synonyms:	Uroporphyrinogen-III Synthase; UROIIIS; UROS; Hydroxymethylbilane Hydrolyase [Cyclizing]; Uroporphyrinogen-III Cosynthase; UROS
Species:	Human
Source:	E. coli
Accession:	P10746 (M1-C265)
Gene ID:	7390
Molecular Weight:	Approximately 29.0 kDa

PROPERTIES

AA Sequence	MKVLLLKDAK EDDCGQDPYI RELGLYGLEA TLIPVLSFEF LSLPSFSEKL SHPEDYGGLI FTSPRAVEAA ELCLEQNNKT EVWERSLKEK WNAKSVYVVG NATASLVSKI GLDTEGETCG NAEKLAEYIC SRESSALPLL FPCGNLKREI LPKALKDKGI AMESITVYQT VAHPGIQGNL NSYYSQQGVP ASITFFSPSG LTYSLKHIQE LSGDNIDQIK FAAIGPTTAR ALAAQGLPVS CTAESPTPQA LATGIRKALQ PHGCC
Appearance	Solution.
Formulation	Supplied as a 0.2 μm filtered solution of 20 mM Tris-HCl, 100 mM NaCl, 10% Glycerol, pH 8.0.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	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	UROIIIS, or uroporphyrinogen-III synthase, plays a pivotal role in tetrapyrrole biosynthesis by catalyzing the cyclization of hydroxymethylbilane to form the macrocyclic uroporphyrinogen III. This enzymatic step represents a critical branch point, giving rise to various sub-pathways leading to the diverse array of porphyrins. Porphyrins, synthesized through this process, serve as essential cofactors for numerous enzymes involved in diverse cellular processes. These processes include methionine synthesis, where porphyrins act as cofactors for enzymes related to vitamin B12 metabolism, as well as oxygen transport, where porphyrins, particularly heme, play a crucial role in binding and transporting oxygen in hemoglobin. It has

to highlight UROIIIS's central role in porphyrin biosynthesis and its importance in supporting various biological processes through the generation of essential cofactors.

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