

Enoyl-ACP Reductase Protein, E. coli (His)

Cat. No.:	HY-P75252
Synonyms:	b1288 Protein; ECK1283 Protein; envM Protein; gts Protein; JW1281 Protein; qmeA Protein
Species:	E.coli
Source:	E. coli
Accession:	WP_000506490 (G2-K262)
Gene ID:	/
Molecular Weight:	Approximately 30 kDa

PROPERTIES

AA Sequence	<pre> G F L S G K R I L V T G V A S K L S I A Y G I A Q A M H R E G A E L A F T Y Q N D K L K G R V E E F A A Q L G S D I V L Q C D V A E D A S I D T M F A E L G K V W P K F D G F V H S I G F A P G D Q L D G D Y V N A V T R E G F K I A H D I S S Y S F V A M A K A C R S M L N P G S A L L T L S Y L G A E R A I P N Y N V M G L A K A S L E A N V R Y M A N A M G P E G V R V N A I S A G P I R T L A A S G I K D F R K M L A H C E A V T P I R R T V T I E D V G N S A A F L C S D L S A G I S G E V V H V D G G F S I A A M N E L E L K </pre>
Biological Activity	Enzymatic activity is determined by following NADH consumption. The specific activity is 1055.75 pmol/min/μg.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 50 mM Tris-HCL, 300 mM NaCl, pH 7.4.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH ₂ O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).
Storage & Stability	Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.
Shipping	Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background	Enoyl-ACP Reductase is a member of the Short chain Dehydrogenase Reductase (SDR) superfamily and thus are closely related to the other SDR enzyme of the fatty acid synthesis cycle, 3-ketoacyl-ACP reductase, in both structure and mechanism. Enoyl-ACP Reductase is a key enzyme of the type II fatty acid synthesis (FAS) system. Fatty acid biosynthesis is
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essential for survival in mammals, plants, fungi and bacteria (the archaea make isoprenoid-based lipids). Enoyl-ACP Reductase catalyzes the reduction of a carbon-carbon double bond in an enoyl moiety that is covalently linked to an acyl carrier protein (ACP). And it is involved in the elongation cycle of fatty acid which are used in the lipid metabolism and in the biotin biosynthesis^{[1][2]}.

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

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