LpxC Protein, E.coli (His)

Cat. No.:	HY-P71488
Synonyms:	lpxC; asmB; envA; b0096; JW0094; UDP-3-O-acyl-N-acetylglucosamine deacetylase; UDP-3-O-acyl-GlcNAc deacetylase; EC 3.5.1.108; Protein EnvA; UDP-3-O-[R-3-hydroxymyristoyl]-N-acetylglucosamine deacetylase
Species:	E.coli
Source:	E. coli
Accession:	P0A725 (1M-305A)
Gene ID:	58460764
Molecular Weight:	Approximately 38.0 kDa

PROPERTIES

AA Sequence	M I K Q R T L K R I V Q A T G V G L H T G K K V T L T L R P A P A N T G V I Y R R T D L N P P V D F P A D A K S V R D T M L C T C L V N E H D V R I S T V E H L N A A L A G L G I D N I V I E V N A P E I P I M D G S A A P F V Y L L L D A G I D E L N C A K K F V R I K E T V R V E D G D K W A E F K P Y N G F S L D F T I D F N H P A I D S S N Q R Y A M N F S A D A F M R Q I S R A R T F G F M R D I E Y L Q S R G L C L G G S F D C A I V V D D Y R V L N E D G L R F E D E F V R H K M L D A I G D L F M C G H N I I G A F T A Y K S G H A L N N K L L Q A V L A K Q E A W E Y V T F Q D D A E L P L A F K A P S A V L A
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against solution in Tris-based buffer, 50% glycerol.
Endotoxin Level	<1 EU/μg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH_2O.
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	LpxC is an enzyme that plays a crucial role in lipid A biosynthesis by catalyzing the hydrolysis of UDP-3-O-myristoyl-N-acetylglucosamine. This reaction results in the formation of UDP-3-O-myristoylglucosamine and acetate, representing the committed step in the biosynthesis of lipid A, a key component of bacterial lipopolysaccharides. Lipid A is an essential

structural element in the outer membrane of Gram-negative bacteria, contributing to membrane integrity and playing a role in host-pathogen interactions. LpxC's catalytic activity is pivotal for the production of lipid A, and the enzyme serves as a potential target for the development of antibacterial agents aimed at disrupting the synthesis of crucial bacterial cell wall components.

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