E.coli Enoyl-ACP Reductase / FABI Protein (His Tag)

Catalog Number: **30001-E07E**

Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

b1288; ECK1283; envM; gts; JW1281; qmeA

Protein Construction:

A DNA sequence encoding the E.coli FABI (NP_287908.1) (Gly 2-Lys 262) was expressed, with a polyhistide tag at the N-terminus.

Source: E. coli

Expression Host: E. coli

QC Testing

Purity: > 98 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 ℃

Predicted N terminal: Met

Molecular Mass:

The recombinant E.coli FABI consisting of 276 amino acids and has a calculated molecular mass of 29.5 kDa. It migrates as an approximately 33 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 20mM Tris 0.5M NaCl, 10% glycerol, pH 7.5

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

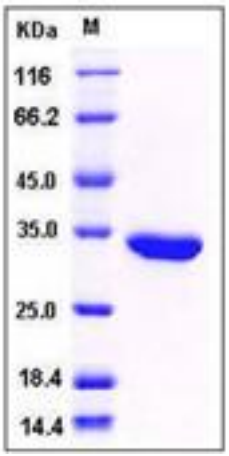
Store it under sterile conditions at -20℃ to -80℃ upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Enoyl-ACP reductase, also known as NADH-dependent enoyl-ACP reductase and FABI, is a cell inner membrane and peripheral membrane protein which belongs to the short-chain dehydrogenases/reductases (SDR) family and FabI subfamily. Microorganisms produce many kinds of antibiotics which function in an antagonistic capacity in nature where they have much competition. Bacterial FAS provides essential fatty acids for use in the assembly of key cellular components. Among them, FABI is an enoyl-ACP reductase which catalyzes the final and rate-limiting step of bacterial FAS. The antibiotic diazaborine interferes with the activity by binding to the protein. FABI is a potential target for selective antibacterial action, because it shows low overall sequence homology with mammalian enzymes. Various compounds have been reported as inhibitors of bacterial FabI-inhibitory compounds.

References

1.Miller, WH. et al., 2002, J Med Chem 45 (15):3246-56.
2.Kitagawa, H. et al., 2007, Bioorg Med Chem 15 (2):1106-16.
3.Zheng, C.J. et al., 2007, Biochem Biophys Res Commun 362 (4):1107-12.