

Lipopolysaccharide export system protein LptA Recombinant Protein | lptA recombinant protein

Recombinant Escherichia coli Lipopolysaccharide export system protein LptA

CATALOG # AAA114668	HOST E Coli or Yeast or Baculovirus or Mammalian Cell
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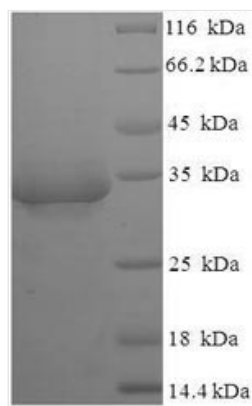
PRODUCT SYNONYMS

Lipopolysaccharide export system protein LptA; Recombinant Escherichia coli Lipopolysaccharide export system protein LptA; lptA recombinant protein

PRODUCT SPECIFICATIONS

Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE.
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Sequence Positions	28-185. Full Length of Mature Protein
Sequence	VTGDTDQPIH IESDQQSLDM QGNVVTFTGN VIVTQGTIKI NADKVVVTRP GGEQGKEVID GYGKPATFYQ MQDNGKPVEG HASQMHYELA KDFVVLGTNA YLQQVDSNIK GDKITYLVKE QKMQAFSDKG KRVTTVLVPS QLQDKNNKGQ TPAQKKGN
Preparation and Storage	Store at -20 degree C, for extended storage, conserve at -20 degree C or -80 degree C.

IMAGES



SDS-PAGE

ADDITIONAL INFORMATION

Related Product Information for lptA recombinant protein	Involved in the assembly of lipopolysaccharide (LPS). Required for the translocation of LPS from the inner membrane to the outer membrane. May form a bridge between the inner membrane and the outer membrane, via interactions with LptC and LptD, thereby facilitating LPS transfer across the periplasm.
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References	Novel proteins of the phosphotransferase system encoded within the rpoN operon of Escherichia coli. Enzyme IANtr affects growth on organic nitrogen and the conditional lethality of an erats mutant.Powell B.S., Court D.L., Inada T., Nakamura Y., Michotey V., Cui X., Reizer A., Saier M.H. Jr., Reizer J.J. Biol. Chem. 270:4822-4839(1995) The complete genome sequence of Escherichia coli K-12.Blattner F.R., Plunkett G. III, Bloch C.A., Perna N.T., Burland V., Riley M., Collado-Vides J., Glasner J.D., Rode C.K., Mayhew G.F., Gregor J., Davis N.W., Kirkpatrick H.A., Goeden M.A., Rose D.J., Mau B., Shao Y.Science 277:1453-1462(1997) Highly accurate genome sequences of Escherichia coli K-12 strains MG1655 and W3110.Hayashi K., Morooka N., Yamamoto Y., Fujita K., Isono K., Choi S., Ohtsubo E., Baba T., Wanner B.L., Mori H., Horiuchi T.Mol. Syst. Biol. 2:E1-E5(2006) Comparing the predicted and observed properties of proteins encoded in the genome of Escherichia coli K-12.Link A.J., Robison K., Church G.M.Electrophoresis 18:1259-1313(1997) Non-essential KDO biosynthesis and new essential cell envelope biogenesis genes in the Escherichia coli yrbG-yhbG locus.Sperandeo P., Pozzi C., Deho G., Polissi A.Res. Microbiol. 157:547-558(2006) Characterization of lptA and lptB, two essential genes implicated in lipopolysaccharide transport to the outer membrane of Escherichia coli.Sperandeo P., Cescutti R., Villa R., Di Benedetto C., Candia D., Deho G., Polissi A.J. Bacteriol. 189:244-253(2007) Functional analysis of the protein machinery required for transport of lipopolysaccharide to the outer membrane of Escherichia coli.Sperandeo P., Lau F.K., Carpentieri A., De Castro C., Molinaro A., Deho G., Silhavy T.J., Polissi A.J. Bacteriol. 190:4460-4469(2008) The LptA protein of Escherichia coli is a periplasmic lipid A-binding protein involved in the lipopolysaccharide export pathway.Tran A.X., Trent M.S., Whitfield C.J. Biol. Chem. 283:20342-20349(2008) Proteins required for lipopolysaccharide assembly in Escherichia coli form a transenvelope complex.Chng S.S., Gronenberg L.S., Kahne D.Biochemistry 49:4565-4567(2010) Characterization of interactions between LPS transport proteins of the Lpt system.Bowyer A., Baardsnes J., Ajamian E., Zhang L., Cygler M.Biochem. Biophys. Res. Commun. 404:1093-1098(2011) New insights into the Lpt machinery for lipopolysaccharide transport to the cell surface LptA-LptC interaction and LptA stability as sensors of a properly assembled transenvelope complex.Sperandeo P., Villa R., Martorana A.M., Samalikova M., Grandori R., Deho G., Polissi A.J. Bacteriol. 193:1042-1053(2011) Regulated assembly of the transenvelope protein complex required for lipopolysaccharide export.Freinkman E., Okuda S., Ruiz N., Kahne D.Biochemistry 51:4800-4806(2012) Novel structure of the conserved Gram-negative lipopolysaccharide transport protein A and mutagenesis analysis.Suits M.D.L., Sperandeo P., Deho G., Polissi A., Jia Z.J. Mol. Biol. 380:476-488(2008)
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NCBI AND UNIPROT INFORMATION

NCBI GI #	16131090
NCBI GeneID	947920
NCBI Accession #	NP_417667.1
NCBI GenBank Nucleotide #	NC_000913.3
UniProt Accession #	P0ADV1; P38685; Q2M912
Molecular Weight	19.3 kDa
NCBI Official Full Name	lipopolysaccharide export ABC transporter periplasmic binding protein; Lipid A binding protein; LPS export and assembly protein
NCBI Official Symbol	lptA
NCBI Official Synonym Symbols	ECK3189; JW3167; yhbN
NCBI Protein Information	lipopolysaccharide export ABC transporter periplasmic binding protein; Lipid A binding protein; LPS export and assembly protein
UniProt Protein Name	Lipopolysaccharide export system protein LptA
UniProt Gene Name	lptA
UniProt Entry Name	LPTA_ECOLI

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.