PGPB Antibody – Rabbit Polyclonal

PRODUCT OVERVIEW

Product Name	PGPB, Polyclonal Antibody
Full Product Name	Rabbit anti-Escherichia coli (strain K12) PGPB Polyclonal Antibody
Product Gene Name	anti-PGPB antibody
Product Synonym Names	PGPB Antibody; Phosphatidylglycerophosphatase B; EC 3.1.3.27; Diacylglycerol pyrophosphate phosphatase; DGPP phosphatase; EC 3.1.3.81; Phosphatidate phosphatase; EC 3.1.3.4; Undecaprenyl pyrophosphate phosphatase; EC 3.6.1.27; Undecaprenyl-diphosphatase; pgpB b1278 JW1270
Clonality	Polyclonal
Isotype	IgG
Host	Rabbit
Species Reactivity	E Coli (strain K12)
Form/Format	Liquid Preservative: 0.03% Proclin 300 Constituents: 50% Glycerol, 0.01M PBS, pH7.4
Purity/Purification	Antigen-affinity
Preparation and Storage	Upon receipt, store at -20 degree C or -80 degree C. Avoid repeated freeze.
Molecular Weight	29,021 Da
Chromosome Location	NC_000913.2 (1337354..1338118)
3D Structure	ModBase 3D Structure for P0A924
Immunogen	Recombinant Escherichia coli (strain K12) pgpB protein
Conjugation	Non-conjugate
Modification	Unmodified
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-PGPB antibody	ELISA (EIA), WB (Western Blot) (ensure identification of antigen)
Related Product Information for anti-PGPB antibody	MBS7163006 is an antibody targeting PGPB. Also known as Rabbit anti-Escherichia coli (strain K12) PGPB Polyclonal Antibody. Reactive in E Coli (strain K12). Host: Rabbit.
Other Notes	Small volumes of anti-PGPB antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for PGPB. It may not necessarily be applicable to this product.

NCBI GI #	16129239
NCBI GeneID	945863
NCBI Accession #	NP_415794.1

UniProt Primary Accession #	P0A924
UniProt Secondary Accession #	P18201
GenBank Nucleotide #	NC_000913.2
NCBI Official Full Name	phosphatidylglycerophosphatase B
NCBI Official Symbol	pgpB
NCBI Official Synonym Symbols	ECK1273; JW1270
UniProt Protein Name	Phosphatidylglycerophosphatase B
UniProt Synonym Protein Names	Diacylglycerol pyrophosphate phosphatase (EC:3.1.3.81); DGPP phosphatase; Phosphatidate phosphatase (EC:3.1.3.4); Undecaprenyl pyrophosphate phosphatase (EC:3.6.1.27); Undecaprenyl-diphosphatase
Protein Family	Phosphatidylglycerophosphatase
UniProt Gene Name	pgpB
UniProt Synonym Gene Names	DGPP phosphatase
UniProt Entry Name	PGPB_ECOLI
NCBI Protein Information	phosphatidylglycerophosphatase B
NCBI Summary for PGPB	The pgpB gene is nonessential, but is synthetically lethal with a bacA ybjG double mutant, due to its UppP activity. ybjG, pgpB, and lpxT are paralogs. [More information is available at EcoGene: EG10705]. PgpB is one of three phosphatidylglycerophosphatase (PGP-ase) activities in Escherichia coli. [More information is available at EcoCyc: EG10705].
UniProt Comments for PGPB	Function: Catalyzes the dephosphorylation of diacylglycerol diphosphate (DGPP) to phosphatidate (PA) and the subsequent dephosphorylation of PA to diacylglycerol (DAG). Also has undecaprenyl pyrophosphate phosphatase activity, required for the biosynthesis of the lipid carrier undecaprenyl phosphate. Can also use lysophosphatidic acid (LPA) and phosphatidylglycerophosphate as substrates. The pattern of activities varies according to subcellular location, PGP phosphatase activity is higher in the cytoplasmic membrane, whereas PA and LPA phosphatase activities are higher in the outer membrane. Activity is independent of a divalent cation ion and insensitive to inhibition by N-ethylmaleimide. Ref.5 Ref.6 Ref.8 Ref.9 Catalytic activity: Phosphatidylglycerophosphate + H2O = phosphatidylglycerol + phosphate. Ref.5 Ref.81,2-diacyl-sn-glycerol 3-diphosphate + H2O = 1,2-diacyl-sn-glycerol 3-phosphate + phosphate. Ref.5 Ref.8A 1,2-diacylglycerol 3-phosphate + H2O = a 1,2-diacyl-sn-glycerol + phosphate. Ref.5 Ref.8Ditrans,octacis-undecaprenyl diphosphate + H2O = ditrans,octacis-undecaprenyl phosphate + phosphate. Ref.5 Ref.8 Enzyme regulation: Inhibited by Mn2+ ions. Pathway: Phospholipid metabolism; phosphatidylglycerol biosynthesis; phosphatidylglycerol from CDP-diacylglycerol: step 2/2. Subcellular location: Cell inner membrane; Multi-pass membrane protein. Cell outer membrane; Multi-pass membrane protein Ref.1 Ref.7. Post-translational modification: The N-terminus is blocked. Sequence similarities: Belongs to the PA-phosphatase related phosphoesterase family. Biophysicochemical propertiesKinetic parameters:KM=530 µM for undecaprenyl pyrophosphate Ref.5 Ref.8KM=96 µM for farnesyl pyrophosphateKM=80 µM for diacylglycerol pyrophosphateKM=1700 µM for phosphatidateVmax=2167 nmol/min/mg enzyme with diacylglycerol pyrophosphate as substrateVmax=313 nmol/min/mg enzyme with phosphatidate as substratepH dependence:Optimum pH is 6.5 for DGPP phosphatase activity and 6.5-7.5 for undecaprenyl pyrophosphate phosphatase activity. Mass spectrometry: Molecular mass is 30151 Da from positions 2 - 254. Determined by MALDI. Reported mass includes mass of a C-terminal His6 tag. Ref.8

Research Articles on PGPB	**1.** analysis of substrate specificity and membrane topology of Escherichia coli PgpB, an undecaprenyl pyrophosphate phosphatase
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