Hpr Kinase/Phosphorylase (hprK) Bacillus Cereus Recombinant Protein

PRODUCT OVERVIEW

Product Name	HPr kinase/phosphorylase (hprK), Recombinant Protein
Full Product Name	Recombinant Bacillus cereus HPr kinase/phosphorylase (hprK)
Product Gene Name	hprK recombinant protein
Sequence	MPKVRTKDLI EQFQLELISG EEGIHRPIDT SDLSRPGIEM AGFFTYYPAD RVQLLGKTEL TFFDTLTSEQ KQERMKALCT EETPCIIVTR NQDVPDELLQ ASRESGMPLL RSSQTTTRLS SRLTNYLEGK LAPTTAVHGV LVDIYGVGVL ITGQSGVGKS ETALELVKRG HRLVADDSVE IRQEDEDMLV GSSPDLIEHL LEIRGLGIIN VMTLFGAGAV RNYKRITLVI NLEIWDQKKN YDRLGLDEEK MKIIDTELTK ITLPVRPGRN LAVIIEVAAM NFRLKRMGVN AAQQFSERLM SAIELGNQE
Host	E Coli or Yeast or Baculovirus or Mammalian Cell
Form/Format	Lyophilized or liquid (Format to be determined during the manufacturing process)
Purity/Purification	Greater or equal to 85% purity as determined by SDS-PAGE. (lot specific)
Preparation and Storage	Store at -20 degrees C. For long-term storage, store at -20 degrees C or -80 degrees C. Store working aliquots at 4 degrees C for up to one week. Repeated freezing and thawing is not recommended.
Molecular Weight	34,601 Da
Sequence Positions	1-309, Full length
Tag Information	This protein contains an N-terminal tag and may also contain a C-terminal tag. Tag types are determined by various factors including tag-protein stability, please inquire for tag information.
Sterility	Sterile filter available upon request.
Endotoxin	Low endotoxin available upon request.
3D Structure	ModBase 3D Structure for B7HWY9
Species	Bacillus cereus (strain AH187)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for hprK recombinant protein	MBS1258426 is a recombinant protein targeting hprK. Also known as Recombinant Bacillus cereus HPr kinase/phosphorylase (hprK). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of hprK recombinant protein 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 hprK. It may not necessarily be applicable to this product.

NCBI GI #	447049994
NCBI Accession #	WP_001127250.1
UniProt Primary Accession #	B7HWY9
GenBank Nucleotide #	WP_001127250.1
NCBI Official Full Name	MULTISPECIES: HPr kinase/phosphorylase
UniProt Protein Name	HPr kinase/phosphorylase

UniProt Synonym Protein Names	HPr(Ser) kinase/phosphorylase
Protein Family	HPr kinase/phosphorylase
UniProt Gene Name	hprK
UniProt Synonym Gene Names	HPrK/P
UniProt Comments for hprK	Catalyzes the ATP- as well as the pyrophosphate-dependent phosphorylation of a specific serine residue in HPr, a phosphocarrier protein of the phosphoenolpyruvate-dependent sugar phosphotransferase system (PTS). HprK/P also catalyzes the pyrophosphate-producing, inorganic phosphate-dependent dephosphorylation (phosphorolysis) of seryl-phosphorylated HPr (P-Ser-HPr). The two antagonistic activities of HprK/P are regulated by several intracellular metabolites, which change their concentration in response to the absence or presence of rapidly metabolisable carbon sources (glucose, fructose, etc.) in the growth medium. Also phosphorylates/dephosphorylates the HPr-like catabolite repression protein crh on a specific serine residue. Therefore, by controlling the phosphorylation state of HPr and crh, HPrK/P is a sensor enzyme that plays a major role in the regulation of carbon metabolism and sugar transport: it mediates carbon catabolite repression (CCR), and regulates PTS-catalyzed carbohydrate uptake and inducer exclusion.
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