Hydrogenase Isoenzymes Nickel Incorporation Protein Hypb (hypB) Escherichia Coli Recombinant Protein

PRODUCT OVERVIEW

Product Name	Hydrogenase isoenzymes nickel incorporation protein hypB (hypB), Recombinant Protein
Full Product Name	Recombinant Escherichia coli Hydrogenase isoenzymes nickel incorporation protein hypB (hypB)
Product Gene Name	hypB recombinant protein
Sequence	MCTTCGCGEG NLYIEGDEHN PHSAFRSAPF APAARPKMKI TGIKAPEFTP SQTEEGDLHY GHGEAGTHAP GMSQRRMLEV EIDVLDKNNR LAERNRARFA ARKQLVLNLV SSPGSGKTTL LTETLMRLKD SVPCAVIEGD QQTVNDAARI RATGTPAIQV NTGKGCHLDA QMIADAAPRL PLDDNGILFI ENVGNLVCPA SFDLGEKHKV AVLSVTEGED KPLKYPHMFA AASLMLLNKV DLLPYLNFDV EKCIACAREV NPEIEIILIS ATSGEGMDQW LNWLETQRCA
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	31,565 Da
Sequence Positions	1-290, full length protein
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 P0AAN3
Species	Escherichia coli (strain K12)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for hypB recombinant protein	MBS1228074 is a recombinant protein targeting hypB. Also known as Recombinant Escherichia coli Hydrogenase isoenzymes nickel incorporation protein hypB (hypB). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of hypB 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 hypB. It may not necessarily be applicable to this product.

NCBI GI #	16130634
NCBI GeneID	947194
NCBI Accession #	NP_417207.1
UniProt Primary Accession #	P0AAN3
UniProt Secondary Accession #	P24190; Q2MAA2; Q46884

GenBank Nucleotide #	NC_000913.3
NCBI Official Full Name	GTP hydrolase involved in nickel liganding into hydrogenases
NCBI Official Symbol	hypB
NCBI Official Synonym Symbols	ECK2722; hydB; hydE; JW2697
UniProt Protein Name	Hydrogenase maturation factor HypB
UniProt Synonym Protein Names	Hydrogenase isoenzymes nickel incorporation protein HypBCurated
Protein Family	Hydrogenase isoenzymes nickel incorporation protein
UniProt Gene Name	hypB
NCBI Protein Information	GTP hydrolase involved in nickel liganding into hydrogenases
NCBI Summary for hypB	hypB mutants are pheotypically suppressed by added Ni. [More information is available at EcoGene: EG10484]. The HypB protein is an accessory protein involved in the maturation of all hydrogenase isoenzymes. [More information is available at EcoCyc: EG10484].
UniProt Comments for hypB	Involved in the maturation of [NiFe] hydrogenases. Required for nickel insertion into the metal center of the hydrogenase (PubMed:7601092, PubMed:8756471). Exhibits a low intrinsic GTPase activity, which is essential for nickel insertion (PubMed:7601092, PubMed:21544686, PubMed:27951644). In the presence of GDP, nickel, but not zinc, is transferred from the HypB GTPase domain (G-domain) to HypA (PubMed:23899293, PubMed:27951644).
Research Articles on hypB	**1.** analysis of a cell-free approach for H-cluster synthesis and hydrogenase maturation by using separately expressed and purified HydE, HydF, and HydG
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
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