Photosystem Q (B) Protein 1 (psbAI) Nostoc Sp. Recombinant Protein

PRODUCT OVERVIEW

Product Name	Photosystem Q (B) protein 1 (psbAI), Recombinant Protein
Full Product Name	Recombinant Nostoc sp. Photosystem Q (B) protein 1
Product Gene Name	psbAI recombinant protein
Product Synonym Gene Name	psbA1; psbA-1, psbAI
Product Synonym Names	Recombinant Photosystem Q (B) protein 1; Photosystem Q(B) protein 1 EC= 1.10.3.9; 32 kDa thylakoid membrane protein 1 Photosystem II protein D1 1
Sequence	MTTTLQQRSS ANVWERFCTW ITSTENRIYV GWFGVLMIPT LLAATVCFII AFVAAPPVDI DGIREPVAGS LIYGNNIISG AVVPSSNAIG LHFYPIWEAA SLDEWLYNGG PYQLVIFHFL IGCACYLGRQ WELSYRLGMR PWICVAYSAP LASATAVFLI YPIGQGSFSD GMPLGISGTF NFMIVFQAEH NILMHPFHML GVAGVFGGSL FSAMHGSLVT SSLVRETTEI ESQNYGYKFG QEEETYNIVA AHGYFGRLIF QYASFNNSRQ LHFFLAAWPV IGIWFTALGV STMAFNLNGF NFNQSIIDSQ GRVINTWADI INRANLGMEV MHERNAHNFP LDLA
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 degree C. For extended storage, store at -20 or -80 degree C.
Molecular Weight	39,674 Da
Sequence Positions	1-344
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.
Chromosome Location	NC_003272.1 (5796899..5797981)
3D Structure	ModBase 3D Structure for P46242
Species	Nostoc sp. (strain PCC 7120 / UTEX 2576)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for psbAI recombinant protein	MBS1227545 is a recombinant protein targeting psbAI. Also known as Recombinant Nostoc sp. Photosystem Q (B) protein 1. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of psbAI 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 psbAI. It may not necessarily be applicable to this product.

NCBI GI #	17232358
NCBI GeneID	1108467
NCBI Accession #	NP_488906.1

UniProt Primary Accession #	P46242
UniProt Related Accession #	AB2414
GenBank Nucleotide #	NC_003272.1
NCBI Official Full Name	photosystem II protein D1
NCBI Official Symbol	psbAI
UniProt Protein Name	Photosystem Q(B) protein 1
UniProt Synonym Protein Names	32 kDa thylakoid membrane protein 1; Photosystem II protein D1 1
UniProt Gene Name	psbA1
UniProt Synonym Gene Names	psbA-1; psbAI
UniProt Entry Name	PSBA1_NOSS1
NCBI Protein Information	photosystem II protein D1
UniProt Comments for psbAI	Function: This is one of the two reaction center proteins of photosystem II By similarity. HAMAP-Rule MF_01379 Catalytic activity: 2 H2O + 2 plastoquinone + 4 light = O2 + 2 plastoquinol. HAMAP-Rule MF_01379 Cofactor: The PsbA/B heterodimer binds P680, the primary electron donor of PSII. It shares a non-heme iron and each subunit binds additional chlorophylls and pheophytin. PsbA provides most of the ligands for the Mn-cluster of the oxygen-evolving complex By similarity. Subunit structure: The PsbA/B heterodimer binds the P680 chlorophylls and subsequent electron acceptors. PSII consists of a core antenna complex that captures photons, and an electron transfer chain that converts photonic excitation into a charge separation. PSII forms dimeric complexes By similarity. Subcellular location: Cellular thylakoid membrane; Multi-pass membrane protein By similarity HAMAP-Rule MF_01379. Miscellaneous: Herbicides such as atrazine, BNT, diuron or ioxynil bind to Q(B) and block electron transport By similarity. HAMAP-Rule MF_01379Cyanobacteria usually contain more than 2 copies of the psbA gene. HAMAP-Rule MF_01379 Sequence similarities: Belongs to the reaction center PufL/M/PsbA/D family.
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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