Acireductone Dioxygenase (mtnD) Synechococcus Sp. Recombinant Protein

PRODUCT OVERVIEW

Product Name	Acireductone dioxygenase (mtnD), Recombinant Protein
Full Product Name	Recombinant Synechococcus sp. Acireductone dioxygenase (mtnD)
Product Gene Name	mtnD recombinant protein
Sequence	MSELSIYSEQ GGEPVFSTLD SARIQHELSL RGIAFDRCAS KAEIALDADQ ADILSTYAEE IHRIQALGDY PTVDAIRMKP DHPDRQALRQ KFLSEHTHAE DEVRLFVEGR GLFCLHIKSE VLQVTCETND WISVPAGTRH WFDMGEKPYF CAIRFFNNPN GWVANFTNDP IAERFSKLRD
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	20,560 Da
Sequence Positions	1-180, 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 A5GJ71
Species	Synechococcus sp. (strain WH7803)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for mtnD recombinant protein	MBS1227559 is a recombinant protein targeting mtnD. Also known as Recombinant Synechococcus sp. Acireductone dioxygenase (mtnD). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of mtnD 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 mtnD. It may not necessarily be applicable to this product.

NCBI GI #	500459674
NCBI Accession #	WP_011932472.1
UniProt Primary Accession #	A5GJ71
GenBank Nucleotide #	WP_011932472.1
NCBI Official Full Name	acireductone dioxygenase
UniProt Protein Name	Acireductone dioxygenase
UniProt Synonym Protein Names	1,2-dihydroxy-3-keto-5-methylthiopentene dioxygenase

Protein Family	Acireductone dioxygenase
UniProt Gene Name	mtnD
UniProt Synonym Gene Names	DHK-MTPene dioxygenase; ARD'; Fe-ARD; ARD; Ni-ARD
UniProt Comments for mtnD	Catalyzes 2 different reactions between oxygene and the acireductone 1,2-dihydroxy-3-keto-5-methylthiopentene (DHK-MTPene) depending upon the metal bound in the active site. Fe-containing acireductone dioxygenase (Fe-ARD) produces formate and 2-keto-4-methylthiobutyrate (KMTB), the alpha-ketoacid precursor of methionine in the methionine recycle pathway. Ni-containing acireductone dioxygenase (Ni-ARD) produces methylthiopropionate, carbon monoxide and formate, and does not lie on the methionine recycle pathway.
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