Ketol-Acid Reductoisomerase 1 (ilvC1) Bacillus Cereus Recombinant Protein

PRODUCT OVERVIEW

Product Name	Ketol-acid reductoisomerase 1 (ilvC1), Recombinant Protein
Full Product Name	Recombinant Bacillus cereus Ketol-acid reductoisomerase 1 (ilvC1)
Product Gene Name	ilvC1 recombinant protein
Product Synonym Gene Name	ilvC1
Sequence	MAKVYYEKDV TVNVLKEKKV AIIGYGSQGH AHAQNLRDNG FDVVVGLRKG KSWDKAKEDG FSVYTVAEAA KQADVVMILL PDELQPEVYE AEIAPNLQAG NSLVFAHGFN VHFDQVKPPA NVDVFLVAPK GPGHLVRRTF SEGGAVPALF AVYQDATGVA TEKALSYADG IGATRAGVLE TTFKEETETD LFGEQAVLCG GVTALVKAGF ETLVDAGYQP ELAYFECLHE LKLIVDLMYE GGLENMRYSV SDTAQWGDFV SGPRVVTEDT KKAMGTVLAE IQDGTFARGW IAEHKAGRPN FHATNEKENE HEIEVVGRKL REMMPFVQPR VKVGMK
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	36,741 Da
Sequence Positions	1-336, 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 Q73BA1
Species	Bacillus cereus (strain 10987)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for ilvC1 recombinant protein	MBS1356723 is a recombinant protein targeting ilvC1. Also known as Recombinant Bacillus cereus Ketol-acid reductoisomerase 1 (ilvC1). Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of ilvC1 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 ilvC1. It may not necessarily be applicable to this product.

NCBI GI #	447074479
NCBI Accession #	WP_001151735.1
UniProt Primary Accession #	Q73BA1
GenBank Nucleotide #	WP_001151735.1
NCBI Official Full Name	MULTISPECIES: Ketol-acid reductoisomerase 1

UniProt Protein Name	Ketol-acid reductoisomerase (NADP(+)) 1
UniProt Synonym Protein Names	Acetohydroxy-acid isomeroreductase 1
UniProt Gene Name	ilvC1
UniProt Synonym Gene Names	KARI 1; AHIR 1
UniProt Comments for ilvC1	Involved in the biosynthesis of branched-chain amino acids (BCAA). Catalyzes an alkyl-migration followed by a ketol-acid reduction of (S)-2-acetolactate (S2AL) to yield (R)-2,3-dihydroxy-isovalerate. In the isomerase reaction, S2AL is rearranged via a Mg-dependent methyl migration to produce 3-hydroxy-3-methyl-2-ketobutyrate (HMKB). In the reductase reaction, this 2-ketoacid undergoes a metal-dependent reduction by NADPH to yield (R)-2,3-dihydroxy-isovalerate.
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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