Isoleucine--Trna Ligase (ileS) Escherichia Coli Recombinant Protein

PRODUCT OVERVIEW

Product Name	Isoleucine--tRNA ligase (ileS), Recombinant Protein
Full Product Name	Recombinant Escherichia coli Isoleucine--tRNA ligase (ileS) , partial
Product Gene Name	ileS recombinant protein
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	104,297 Da
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 P00956
Species	Escherichia coli (strain K12)
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Related Product Information for ileS recombinant protein	MBS1207080 is a recombinant protein targeting ileS. Also known as Recombinant Escherichia coli Isoleucine--tRNA ligase (ileS) , partial. Host: E Coli or Yeast or Baculovirus or Mammalian Cell.
Other Notes	Small volumes of ileS 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 ileS. It may not necessarily be applicable to this product.

NCBI GI #	16128020
NCBI GeneID	944761
NCBI Accession #	NP_414567.1
UniProt Primary Accession #	P00956
UniProt Secondary Accession #	P78038; Q59429
GenBank Nucleotide #	NC_000913.3
NCBI Official Full Name	isoleucyl-tRNA synthetase
NCBI Official Symbol	ileS
NCBI Official Synonym Symbols	ECK0027; ilvS; JW0024
UniProt Protein Name	Isoleucine--tRNA ligase

UniProt Synonym Protein Names	Isoleucyl-tRNA synthetase; IleRS
Protein Family	Isoleucine--tRNA ligase
UniProt Gene Name	ileS
UniProt Synonym Gene Names	ilvS; IleRS
NCBI Protein Information	isoleucyl-tRNA synthetase
NCBI Summary for ileS	ileS is an essential gene; the ileS mutants in the Keio collection have a second intact copy of ileS (R. [More information is available at EcoGene: EG10492]. Isoleucyl-tRNA synthetase (IleRS) is a member of the family of aminoacyl-tRNA synthetases, which interpret the genetic code by covalently linking amino acids to their specific tRNA molecules. [More information is available at EcoCyc: EG10492].
UniProt Comments for ileS	Catalyzes the attachment of isoleucine to tRNA(Ile). As IleRS can inadvertently accommodate and process structurally similar amino acids such as valine, to avoid such errors it has two additional distinct tRNA(Ile)-dependent editing activities. One activity is designated as 'pretransfer' editing and involves the hydrolysis of activated Val-AMP. The other activity is designated 'posttransfer' editing and involves deacylation of mischarged Val-tRNA(Ile).
Research Articles on ileS	**1.** Data indicate that tyrosine 59 participates in the synthetic reaction of isoleucyl-tRNA synthetase (EcIleRS).
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