# 4-Hydroxy-3-Methylbut-2-En-1-Yl Diphosphate Synthase (ispG) Thermosynechococcus Elongatus Recombinant Protein

## PRODUCT OVERVIEW

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| **Product Name** | 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (ispG), Recombinant Protein |
| **Full Product Name** | Recombinant Thermosynechococcus elongatus 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (ispG) |
| **Product Gene Name** | ispG recombinant protein |
| **Product Synonym Gene Name** | ispG |
| **Sequence** | MQTLPSPVQA TPTETAIVRR KTRPVPIGSV VIGGGHPVAV QSMINEDTLD IEGSVAAIRR LHEIGCEIVR VTVPSLAHAK AMEEIRDRLY KTYKPVPLVA DVHHNGMKIA LEVAKYVDNV RINPGLYVFE KPKPNRTEYT QAEFDEIGAK IRETLEPLVI SLRDQGKSMR IGVNHGSLAE RMLFTYGDTP EGMVESALEF IRICESLNFY NLEISLKASR VPVMIAANRL MVKRMDELGM DYPLHLGVTE AGDGEYGRIK STAGIATLLA EGIGDTIRVS LTEAPEKEIP VCYGILQALG LRRTMVEYVA CPSCGRTLFN LEEVLHKVRE ATKHLTGLNI AVMGCIVNGP GEMADADYGY VGKQPGYISL YRGREEVKKV PEAEGVAALV ELIKADGRWV DP |
| **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** | 44,192 Da |
| **Sequence Positions** | 1-402, 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 Q8DK70 |
| **Species** | Thermosynechococcus elongatus (strain BP-1) |
| **ISO Certification** | Manufactured in an ISO 9001:2015 Certified Laboratory. |
| **Related Product Information for ispG recombinant protein** | MBS1356207 is a recombinant protein targeting ispG. Also known as Recombinant Thermosynechococcus elongatus 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (ispG). Host: E Coli or Yeast or Baculovirus or Mammalian Cell. |
| **Other Notes** | Small volumes of ispG 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 ispG. It may not necessarily be applicable to this product.

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| **NCBI GI #** | 22298539 |
| **NCBI GeneID** | 1011326 |
| **NCBI Accession #** | NP_681786.1 |

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| **UniProt Primary Accession #** | Q8DK70 |
| **UniProt Related Accession #** | Q8DK70 |
| **GenBank Nucleotide #** | NC_004113.1 |
| **NCBI Official Full Name** | 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase |
| **NCBI Official Symbol** | ispG |
| **NCBI Official Synonym Symbols** | gcpE |
| **UniProt Protein Name** | 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (ferredoxin) |
| **UniProt Synonym Protein Names** | 1-hydroxy-2-methyl-2-(E)-butenyl 4-diphosphate synthase |
| **Protein Family** | 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase |
| **UniProt Gene Name** | ispG |
| **NCBI Protein Information** | 4-hydroxy-3-methylbut-2-en-1-yl diphosphate synthase (ferredoxin) |
| **UniProt Comments for ispG** | Converts 2C-methyl-D-erythritol 2,4-cyclodiphosphate (ME-2,4cPP) into 1-hydroxy-2-methyl-2-(E)-butenyl 4-diphosphate, using ferredoxin I (PetF) as the reducing agent. |
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