

# Recombinant Human Guanine Monphosphate Synthetase, His-tagged

**Cat. No.** GMPS-1927H    **Lot. No.** (See product label)

## SPECIFICATION

<b>Product Overview</b>	Recombinant humanGMPS protein, fused to His-tag at N-terminus, was expressed in E. coli andpurified by using conventional chromatography techniques.
<b>Species</b>	Human
<b>Description</b>	GMPsynthase, also known as GMPS, is involved in purine biosynthesis. Existing asa homodimer, GMPS catalyzes the last step in the GMP synthesis pathway,namely the ATP-dependent amination of XMP to GMP.
<b>Form</b>	Liquid. In 20mMTris-HCl buffer (pH 8.0) containing 1mM DTT, 30% glycerol, 0.1M NaCl.
<b>Molecular Weight</b>	79.2 kDa(717aa)
<b>Purity</b>	> 90%by SDS-PAGE
<b>Concentration</b>	0.5mg/ml (determined by Bradford assay)
<b>Sequences of aminoacids</b>	MGSSHHHHHSSGLVPRGSH MGSHMALCNG DSKLENAGGD LKDGHHHYEG AV VILDAGAQ YGKVIDRRVRELFVQSEIFP LETPAFAIKE QGFRAIIISG GPNSVYAEDA PWFDP AIFTIGKPV LGICYG MQMMNKVFGG TVHKKSVRED GVFNISVDNT CSLFR GLQKE EVLLTHGDS VDKVADGFKVVARSGNIVAG IANESKKLYG AQFHPEVGLT ENGVILKNF LYDIAGCSGT FTVQNRELEC IREIKERVGT SKVLVLLSGGV DSTVCT ALLNRALNQE QVI AVHIDNGFMR KRESQSVEEA LKKLGIQVKV INAAHSFYNG TTT

 Tel: 1-631-559-9269    1-516-512-3133

 Email: [info@creative-biomart.com](mailto:info@creative-biomart.com)     Fax: 1-631-938-8127

 45-1 Ramsey Road, Shirley, NY 11967, USA

LPISEDED RTPRKRISKTLNMTTSPEEKRKIIGDTFVKIANEVIGEMN LKPEEVFLAQ G  
 TLRPDLIES ASLVASGKAE LIKTHHNDTE LIRKLREEGK VIEPLKDFHKDEVIRILGRE  
 LGLPEELVSRHPFPGLAIR VICAEEPYIC KDFPETNNIL KIVADFSASV KKPHTLL  
 QRV KACTTEEDQE KLMQITSLHSLNAFLLLPIKT VGVQGDGRSY SYVCGISSKD EP  
 DWESLIFL ARLIPRMCHN VNRVVYIFGP PVKEPPTDVTPTFLTGGVLS TLRQADFE  
 AH NILRESGYAG KISQMPVILTPLHFDRDPLQ KQPSCQRSVV IRTFITSDFM TGIPA  
 TPGNE IPVEVVLKVM TEIKKIPGIS RIMYDLTSKPPGTTEWE

**Storage**

Can bestored at +4°C short term (1-2 weeks). For long term storage, aliquot andstore at -20°C or -70°C. Avoid repeated freezing and thawing cycles.

**Pathways**

Drug metabolism-other enzymes; Metabolicpathways; Metabolism; Metabolism of nucleotides; Purine metabolism; Purineribonucleoside monophosphate biosynthesis

## GENE INFORMATION

**Gene Name**

GMPS guanine monphosphatesynthetase [ Homo sapiens ]

**Official Symbol**

GMPS

**Synonyms**

GMPS; guanine monphosphate synthetase; GMPsynthase [glutamine-hydrolyzing]; GMP synthase; GMP synthetase; MLL/GMPStfusion protein; glutamine amidotransferase; guanosine 5"-monophosphatesynthase; EC 6.3.5.2

**Gene ID**

8833

**mRNA Refseq**

NM\_003875

**Protein Refseq**

NP\_003866

**MIM**

600358

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<b>UniProt ID</b>	P49915
<b>Chromosome Location</b>	3q24
<b>Function</b>	ATP binding; GMP synthase(glutamine-hydrolyzing) activity; GMP synthase activity; ligase activity;nucleotide binding
<b>Rendering based on</b>	PDB 2VPI.

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