

# Recombinant Human Guanosine Monophosphate Reductase 2, His-tagged

**Cat. No.** GMPR2-788H    **Lot. No.** (See product label)

## SPECIFICATION

### Product Overview

Recombinant human GMPR2 protein, fused to His-tag at N-terminus, was expressed in E.coli and purified by using conventional chromatography techniques. MW =40 kDa (368aa), confirmed by MALDI-TOF.

### Species

Human

### Source

E.coli

### Description

Guanosine monophosphate reductase 2, also known as GMPR2, is the only known metabolic step by which guanine nucleotides can be converted to the pivotal precursor of both adenine and guanine nucleotides. GMPR2 catalyzes the irreversible and NADPH-dependent reductive deamination of GMP to IMP, and plays a critical role in re-utilization of free intracellular bases and purine nucleosides.

### Sequences Of Amino Acids

MGSSHHHHHH SSGLVPRGSH MPHIDNDVKL DFKDVLLRPK RSTLKSRSSEV  
DLTRSFSEFRN SKQTYSGVPI IAA NMDTVGT FEMAKVLCKF SLFTAVHKHY  
SLVQWQEFAG QNPDCLEHLA ASSGTGSSDF EQLEQILEAI PQVKYICLDV  
ANGYSEHFVE FVKDVRKRFP QHTIMAGNVV TGEMVEELIL SGADIKVG I  
GPGSVCTTRK KTG VGY PQLS AVMECADA AH GLKGHIISDG GCSCPGDVAK  
AFGAGADFVM LGGMLAGHSE SGGELIERDG KKYKLFY GMS SEMAMKKYAG  
GVAEYRASEG KTVEVPFKGD VEHTIRDILG GIRSTCTYVG AAKLKELSRR  
TTFIRVTQQV NPIFSEAC

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|                      |                                                                                                                                                       |
|----------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Purity</b>        | > 90% by SDS – PAGE.                                                                                                                                  |
| <b>Form</b>          | Liquid. In 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 10% glycerol.                                                                            |
| <b>Concentration</b> | 1mg/ml (determined by Bradford assay).                                                                                                                |
| <b>Storage</b>       | Can be stored at +4°C short term (1-2 weeks). For long term storage, aliquot and store at -20°C or -70°C. Avoid repeated freezing and thawing cycles. |

## GENE INFORMATION

|                            |                                                                                                                                                                                  |
|----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Gene Name</b>           | GMPR2 guanosine monophosphate reductase 2 [ Homo sapiens ]                                                                                                                       |
| <b>Synonyms</b>            | GMPR2; guanosine monophosphate reductase 2; MGC830; MGC15084; GMP reductase 2; guanosine monophosphate reductase isolog; guanosine 5"-monophosphate oxidoreductase 2; EC 1.7.1.7 |
| <b>Gene ID</b>             | 51292                                                                                                                                                                            |
| <b>mRNA Refseq</b>         | NM_001002000                                                                                                                                                                     |
| <b>Protein Refseq</b>      | NP_001002000                                                                                                                                                                     |
| <b>MIM</b>                 | 610781                                                                                                                                                                           |
| <b>UniProt ID</b>          | Q9P2T1                                                                                                                                                                           |
| <b>Chromosome Location</b> | 14q12                                                                                                                                                                            |
| <b>Pathway</b>             | Purine metabolism                                                                                                                                                                |

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**Function**

GMP reductase activity; metal ion binding; oxidoreductase activity

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