

Human GMPR / GMPR1 Protein (His Tag)

Catalog Number: 15487-H07E



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

GMPR1; 2310004P21Rik; AV028449

Protein Construction:

A DNA sequence encoding the human GMPR (Met1-Ser345) was expressed with a polyhistidine tag at the N-terminus.

Source: Human

Expression Host: E. coli

QC Testing

Purity: > 85 % as determined by SDS-PAGE

Endotoxin:

Please contact us for more information.

Stability:

Samples are stable for up to twelve months from date of receipt at -70 °C

Predicted N terminal: His

Molecular Mass:

The recombinant human GMPR consists of 360 amino acids and predicts a molecular mass of 39.2 KDa. It migrates as an approximately 37 KDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile 50mM Tris, 150mM NaCl, 40% Glycerol, 1mM DTT, pH 8.0.

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

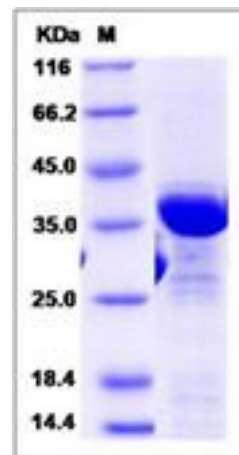
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

GMPR, also known as GMPR1, belongs to the IMPDH/GMPR family. This family of enzymes includes IMP dehydrogenase and GMP reductase. These enzymes are involved in purine metabolism and adopt a TIM barrel structure. GMPR is an enzyme that catalyzes the irreversible and NADPH-dependent reductive deamination of GMP to IMP. GMPR functions in the conversion of nucleobase, nucleoside and nucleotide derivatives of G to A nucleotides, and in maintaining the intracellular balance of A and G nucleotides.

References

- 1.Deng Y., *et al.*,(2002), NADPH-dependent GMP reductase isoenzyme of human (GMPR2). Expression, purification, and kinetic properties. *Int. J. Biochem. Cell Biol.* 34:1035-1050.
- 2.Zhang J., *et al.*, (2003), Cloning and functional characterization of GMPR2, a novel human guanosine monophosphate reductase, which promotes the monocytic differentiation of HL-60 leukemia cells.*J. Cancer Res. Clin. Oncol.* 129:76-83.
- 3.Ivens A.C., *et al.*,(2005), The genome of the kinetoplastid parasite, *Leishmania major*.*Science* 309:436-442.

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