

Human GBP1 Protein (His Tag)

Catalog Number: 12569-H08H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

GBP1

Protein Construction:

A DNA sequence encoding the human GBP1 (AAA35871.1) (Met 1-Cys 589) was fused with a polyhistidine tag at the C-terminus.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

Endotoxin:

< 1.0 EU per µg of the protein as determined by the LAL method

Stability:

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

Predicted N terminal: Met 1

Molecular Mass:

The recombinant human GBP1 comprises 600 amino acids and has a predicted molecular mass of 69 kDa. rhGBP1 migrates as an approximately 65 kDa band in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

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:

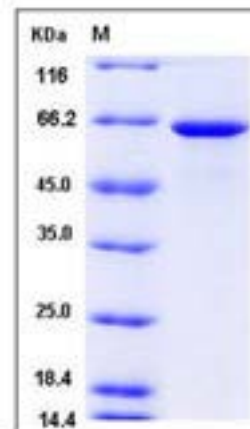
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Guanylate-binding protein 1 (GBP-1) is a member of the GBP family whose members are GTPases induced in response to interferon- λ (IFN- λ), with seven highly homologous members in humans, termed HuGBP-1 to HuGBP-7. GBP-1 expression is induced by type1 and type2 interferons, including IFN- λ ; and also by interleukin-1 β (IL-1 β), IL-1 α , and tumor necrosis factor- α (TNF- α). GBP-1 is key to the protective immunity against microbial and viral pathogens. GBP-1 was only secreted from endothelial cells. Secretion occurred without the presence of a leader peptide. Secretion procession is a nonclassical, likely ABC transporter-dependent, pathway and independent of GBP-1 GTPase activity and isoprenylation, and did not require additional interferon- λ -induced factors. Clinically most important was the detection of significantly increased GBP-1 concentrations in the cerebrospinal fluid of patients with bacterial meningitis as compared to control patients.

References

1. Tripal P, et al. (2007) Unique features of different members of the human guanylate-binding protein family. J Interferon Cytokine Res. 27(1): 44-52.
2. Naschberger E, et al. (2006) Human Guanylate Binding Protein-1 Is a Secreted GTPase Present in Increased Concentrations in the Cerebrospinal Fluid of Patients with Bacterial Meningitis. Am J Pathol. 169(3): 1088-99.

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