

**Recombinant Human GBP1 Protein (His tag)**

**Cat.NO.: TP06639**

3th Edition

**Synonyms:**GBP1

**Description:**Guanylate-binding protein 1 (GBP-1) is a member of the GBP family whose members are GTPases induced in response to interferon- $\gamma$  (IFN- $\gamma$ ), 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- $\gamma$  and also by interleukin-1 $\beta$  (IL-1 $\beta$ ), IL-1 $\alpha$ , and tumor necrosis factor- $\alpha$  (TNF- $\alpha$ ). 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- $\gamma$ -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.

**Form:**PBS

**Molecular Weight:**69 kDa

**Sequences:**Met 1-Cys 589

**Purity:**> 95% by HPLC

**Concentration:**

**Endotoxin Level:**<1.0 EU per 1  $\mu$ g of protein (determined by LAL method)

**Storage:**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.