

Rat GGT1 Protein (His Tag)

Catalog Number: 80364-R07H



Sino Biological Inc.

Biological Solution Specialist

General Information

Gene Name Synonym:

CD224; D22S672; D22S732; GGT; GGT1; GTG; CD224; dwg; GGT; GGT-1; GGT1; Ggtp

Protein Construction:

A DNA sequence encoding the rat GGT1 (P07314) (Pro27-Tyr568) was expressed, fused with a polyhistidine tag at the N-terminus.

Source: Rat

Expression Host: Human Cells

QC Testing

Purity: > 70 % 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: His

Molecular Mass:

The recombinant rat GGT1 comprises 562 amino acids and has a predicted molecular mass of 61.1 kDa. The apparent molecular mass of the protein is approximately 54-57 kDa 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:

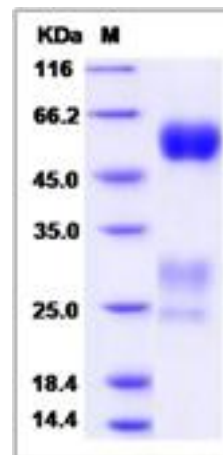
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

GGT1 belongs to the gamma-glutamyltransferase protein family. Many members of this family have not yet been fully characterized and some of which may represent pseudogenes. GGT1 is composed of a heavy chain and a light chain. It catalyzes the transfer of the glutamyl moiety of glutathione to a variety of amino acids and dipeptide acceptors. GGT1 also initiates extracellular glutathione (GSH) breakdown, provides cells with a local cysteine supply and contributes to maintain intracellular GSH level. As part of the cell antioxidant defense mechanism, GGT1 can be detected in fetal and adult kidney and liver, adult pancreas, stomach, intestine, placenta and lung. Defects in GGT1 can cause glutathionuria which is known as an autosomal recessive disease.

References

1. Bulle F, *et al.* (1987) Assignment of the human gamma-glutamyl transferase gene to the long arm of chromosome 22. *Hum Genet.* 76(3):283-6.
2. Tate SS, *et al.* (1988) Renal gamma-glutamyl transpeptidases: structural and immunological studies. *Arch Biochem Biophys.* 262(2):397-408.
3. Tate SS, *et al.* (1988) In vitro translation and processing of human hepatoma cell (Hep G2) gamma-glutamyl transpeptidase. *Biochem Biophys Res Commun.* 154(3):1167-73.

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