Data Sheet (Cat.No.TMPY-07149)

TargetMol

GGT1 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	D22S732;D22S672;CD224;GGT;GGTD;GGT 1;GTG
Protein Construction:	A DNA sequence encoding the Human GGT1 (P19440-1) (Pro27-Tyr569) was expressed with the fused Fc region of human IgG1 at the C-terminus.
Species:	Human
Expression Host:	HEK293 Cells
Accession:	P19440-1
Molecular Weight:	85.33 kDa (predicted); 122.2 kDa and 59.5 kDa (reducing contition)

QC Testing

Biological Activity:	Activity testing is in progress. It is theoretically active, but we cannot guarantee it. If you require protein activity, we recommend choosing the eukaryotic expression version first.
Purity:	≥ 90% as determined by SDS-PAGE.
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from sterile PBS, pH 7.4. Please contact us for any concerns or special requirements. Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the hardcopy of datasheet or the lot-specific COA.

Preparation and Storage

Reconstitution:

Please refer to the lot-specific COA.

Stability & Storage:

It is recommended to store recombinant proteins at -20°C to -80°C for future use. Lyophilized powders can be stably stored for over 12 months, while liquid products can be stored for 6-12 months at -80°C. For reconstituted protein solutions, the solution can be stored at -20°C to -80°C for at least 3 months. Please avoid multiple freeze-thaw cycles and store products in aliquots.

Actual storage temperature shall be subject to the COA.

Shipping:

In general, lyophilized powders are shipped with blue ice, while solutions are shipped with dry ice.

Protein Background

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 intracelular 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.

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