

For Research Use Only

Recombinant Human GGT1 protein (rFc Tag)



Catalog Number: Eg4602

Basic Information

Species:
Human

Purity:
>90 %, SDS-PAGE

Tag:
rFc Tag

Technical Specifications

Purity:

>90 %, SDS-PAGE

Endotoxin Level:

<0.1 EU/μg protein, LAL method

Source:

HEK293-derived Human GGT1 protein Pro27-Tyr569 (Accession# P19440-1) with a rabbit IgG Fc tag at the N-terminus.

GeneID:

2678

Accession:

P19440-1

Predicted Molecular Mass:

85.8 kDa

SDS-PAGE:

20-23 kDa and 70-90 kDa, reducing (R) conditions

Formulation:

Lyophilized from 0.22 μm filtered solution in PBS, pH 7.4. Normally 5% trehalose and 5% mannitol are added as protectants before lyophilization.

Biological Activity

Not tested

Storage and Shipping

Storage:

It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

- Until expiry date, -20°C to -80°C as lyophilized proteins.
- 3 months, -20°C to -80°C under sterile conditions after reconstitution.

Shipping:

The product is shipped at ambient temperature. Upon receipt, store it immediately at the recommended temperature.

Reconstitution

Briefly centrifuge the tube before opening. Reconstitute at 0.1-0.5 mg/mL in sterile water.

Background

Glutamyltransferase 1 (GGT1) is abundantly expressed in various tissues including the pancreas. GGT1 is thought to be involved in the transport of amino acids across the plasma membrane through the gamma-glutamyl cycle. The main function of normal GGT1 is to induce glutathione molecules followed by providing protection against oxidative stress. It is known that oxidative stress plays a role in the pathogenesis of acute pancreatitis. Additionally, smokers with the GGT1 SNP rs5751901 show a higher risk for acute pancreatitis. Furthermore, GGT1 is involved in NF-κB pathway in a manner dependent on reactive oxygen species (ROS) regulation, although GGT1-mediated glutathione molecules suppressed oxidative stress.

References

1. Heisterkamp N. et al. (2008). Hum Genet. 123(4):321-332.
2. Furukawa R. et al. (2024). Sci Rep. 14(1):12224.

Synonyms

CD224, D22S672, D22S732, GGT, GTG

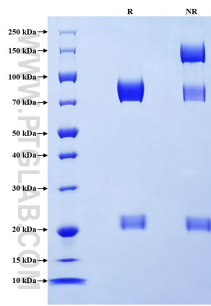
For technical support and original validation data for this product please contact

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Selected Validation Data



Purity of Recombinant Human GGT1 was determined by SDS-PAGE. The protein was resolved in an SDS-PAGE in reducing (R) and non-reducing (NR) conditions and stained using Coomassie blue.