

GPX7 Protein, Human, Recombinant (hFc)

General Information

Synonyms:	GSHPx-7;UNQ469/PRO828;NPGPx;CL683;glutathione peroxidase 7;GPX6;GPx-7
Protein Construction:	A DNA sequence encoding the human GPX7 (NP_056511.2) (Met1-Leu187) was expressed, fused with the Fc region of human IgG1 at the C-terminus. Predicted N terminal: Gln 20
Species:	Human
Expression Host:	HEK293 Cells
Accession:	Q96SL4
Molecular Weight:	46.1 kDa (predicted); 47.9 kDa (reducing conditions)

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:	> 95 % as determined by SDS-PAGE
Endotoxin:	< 1.0 EU/μg of the protein as determined by the LAL method.
Formulation:	Lyophilized from a solution filtered through a 0.22 μm filter, containing PBS, pH 7.4. Typically, a mixture containing 5% to 8% trehalose, mannitol, and 0.01% Tween 80 is incorporated as a protective agent before lyophilization.

Preparation and Storage

Reconstitution:
A Certificate of Analysis (CoA) containing reconstitution instructions is included with the products. Please refer to the CoA for detailed information.

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

GPX7 gene contains 3 distinct gt-ag introns. Transcription produces 4 different mRNAs, 3 alternatively spliced variants, and 1 unspliced form. There are 5 validated alternative polyadenylation sites. The mRNAs appear to differ by overlapping exons with different boundaries. GPX7 is an enzyme. It has molecular functions (glutathione peroxidase activity, oxidoreductase activity) and to localize in various compartments (extracellular space, extracellular region). GPX7 gene has been proposed to participate in pathways (Arachidonic acid metabolism,

Glutathione metabolism), and processes (oxidation-reduction, response to oxidative stress). GPX7 modulates the bone turnover after ovariectomy in rats, it does not compensate for the action of estrogen after ovariectomy in rats. It has been shown that three mAbs (GPX7, GPX22, and GPZ35) inhibit IL-6-mediated biological responses such as Ig production in a human B cell line and proliferative responses of a human Lennert's lymphoma-derived T cell line, a human myeloma cell line, and a mouse pro-B cell line-derived transfectant expressing human gp130.

Reference

Rual JF, et al. (2005) Towards a proteome-scale map of the human protein-protein interaction network. *Nature*. 437 (7062):1173-8.

Gregory SG, et al. (2006) The DNA sequence and biological annotation of human chromosome 1. *Nature*. 441 (7091):315-21.

Lim J, et al. (2006) A protein-protein interaction network for human inherited ataxias and disorders of Purkinje cell degeneration. *Cell*. 125(4):801-14.

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