Recombinant GSHR protein (His tag)

Catalog Number	541958
Synonyms	GR; GRase
Species	Human
Expression System	E. coli
Accession	P00390
Molecular Weight	Predictes a molecular mass of 51.64 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	61-522
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>89%, by SDS-PAGE with Coomassie Brilliant Blue staining.
Endotoxin	Not tested.
Activity	Not tested.
Stability	Samples are stable for up to twelve months from date of receipt at -70℃
Protein Construction	DNA encoding 61-522 aa (P00390) were fused with 6His tag.

Storage & Handling

Reconstitution	Reconstitute at 0.25 μg/μl in sterile water for short-term storage. Reconstitution with 50% glycerol solution is recommended for longer term storage (see Stability and Storage for more details). If a different concentration is needed for your purposes please adjust the reconstitution volume as required (please note: the ion concentration of the final solution will vary according to the volume used). Note: Centrifuge vial before opening. When reconstituting, gently pipet and wash down the sides of the vial to ensure full recovery of the protein into solution.
Storage	Store it under sterile conditions at -20℃ to -80℃. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.
Shipping	In general, recombinant proteins are provided as lyophilized powder which are shipped at ambient temperature. Bulk packages of recombinant proteins are provided as frozen liquid. They are shipped out with blue ice unless customers require otherwise.

Description

Description	Recombinant Human Glutathione Reductase, Mitochondrial (GR) Fragment (residues 61-522) is a high-purity, stable protein fragment designed for structural and biochemical studies. This 462-amino acid soluble unit retains key functional properties, offering researchers a reliable tool to investigate glutathione metabolism and redox regulation mechanisms. Human Glutathione Reductase (GSR, UniProt P00390) is a critical enzyme that catalyzes the reduction of glutathione disulfide (GSSG) to reduced glutathione (GSH), maintaining the essential high GSH:GSSG ratio required for cellular redox homeostasis. The full-length protein exists in both mitochondrial and cytoplasmic isoforms, playing a vital role in antioxidant defense systems. This recombinant fragment represents a stable, soluble domain selected through computational analysis, enabling detailed investigation of glutathione reductase function without structural instability concerns.