Recombinant PRDX3 protein (His tag)

Catalog Number	544542
Synonyms	Antioxidant protein 1; AOP-1; HBC189; Peroxiredoxin III; Prx-III; Peroxiredoxin-3; Protein MER5 homolog; Thioredoxin-dependent peroxiredoxin 3
Species	Human
Expression System	E. coli
Accession	P30048
Molecular Weight	Predictes a molecular mass of 23.19 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 23 kDa band.

Product Information

Sequence Region	62-256
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>90%, 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 62-256 aa (P30048) 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	This product is a recombinant fragment of human Peroxiredoxin-3 (PRDX3), encompassing amino acids 62-256, which includes the complete Thioredoxin domain. It serves as a specialized tool for investigating the protein's antioxidant functions and domain-specific mechanisms in oxidative stress response and cellular signaling pathways. Peroxiredoxin-3 (PRDX3) is a mitochondrial thiol-specific peroxidase that plays a critical role in cellular defense against oxidative stress by catalyzing the reduction of hydrogen peroxide and organic hydroperoxides. It localizes primarily to the mitochondrion but is also found in the cytoplasm and early endosomes, where it functions synergistically with MAP3K13 to regulate NF-kappa-B activation. This protein is essential for detoxifying peroxides and maintaining cellular redox balance, contributing to overall cell protection and physical strength maintenance.