Recombinant PRDX5 protein (His tag)

Catalog Number	539889
Synonyms	Alu corepressor 1; Antioxidant enzyme B166; AOEB166; Liver tissue 2D-page spot 71B; PLP; Peroxiredoxin V; Prx-V; Peroxisomal antioxidant enzyme; TPx type VI; Thioredoxin peroxidase PMP20; Thioredoxin-dependent peroxiredoxin 5
Species	Human
Expression System	E. coli
Accession	P30044
Molecular Weight	Predictes a molecular mass of 18.55 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 19 kDa band.

Product Information

Sequence Region	54-214
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>87%, 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 54-214 aa (P30044) 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 Peroxiredoxin-5 (PRDX5) Fragment (54-214): A high-purity, functional protein fragment encompassing the full thioredoxin domain, designed for targeted studies in oxidative stress response and redox signaling pathways. This product offers researchers a precise tool to investigate domain-specific mechanisms without interference from other regions of the full-length protein. Peroxiredoxin-5 (PRDX5) is a thiol-specific peroxidase in humans that plays a critical role in cellular protection against oxidative stress by catalyzing the reduction of hydrogen peroxide and organic hydroperoxides to water and alcohols. It also functions as a sensor in hydrogen peroxide-mediated signaling events. The full-length protein localizes to multiple subcellular compartments: the mitochondrial isoform resides in the mitochondrion, while the cytoplasmic/peroxisomal isoform is found in the cytoplasm and peroxisome matrix, where it is imported via the peroxisomal targeting signal 1 receptor PEX5. This dual localization underscores its importance in detoxifying peroxides across key cellular environments, supporting redox homeostasis and signaling.