Recombinant PDIA6 protein (His tag)

Catalog Number	545012
Synonyms	Endoplasmic reticulum protein 5; ER protein 5; ERp5; Protein disulfide isomerase P5; Thioredoxin domain-containing protein 7
Species	Human
Expression System	E. coli
Accession	Q15084
Molecular Weight	Predictes a molecular mass of 47.83 kDa. In SDS-PAGE under reducing conditions, it migrates as an approximately 52 kDa band.

Product Information

Sequence Region	20-440
Form	Lyophilized powder
Formulation	Lyophilized from sterile PBS, pH 7.4
Purity	>85%, 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 20-440 aa (Q15084) 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 Protein disulfide-isomerase A6 (PDIA6) Fragment (aa 20-440) – a high-purity protein fragment engineered to encompass the complete thioredoxin 1 and thioredoxin 2 domains. This product is an essential tool for investigating chaperone activity, protein folding, and regulation of the unfolded protein response (UPR) in cellular stress and platelet function studies. Protein disulfide-isomerase A6 (PDIA6), also known as ERp5, is a multifunctional enzyme predominantly located in the endoplasmic reticulum lumen, with additional presence at the cell membrane and in melanosomes. It acts as a chaperone to prevent aggregation of misfolded proteins and plays a critical role in modulating the unfolded protein response by binding to and inactivating UPR sensors such as ERN1 and EIF2AK3. Additionally, PDIA6 is involved in platelet aggregation and activation pathways induced by agonists like convulxin, collagen, and thrombin, highlighting its importance in cellular protein quality control and hemostasis.