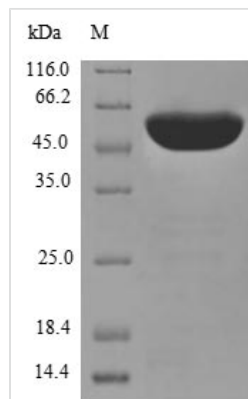




# Recombinant Human Protein disulfide-isomerase A3 (PDIA3)

|                          |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Code</b>      | CSB-EP017720HU                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Relevance</b>         | Catalyzes the rearrangement of -S-S- bonds in proteins.                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| <b>Abbreviation</b>      | Recombinant Human PDIA3 protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>Storage</b>           | The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.                                                                                                                                                                                                                                               |
| <b>Uniprot No.</b>       | P30101                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Product Type</b>      | Recombinant Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Immunogen Species</b> | Homo sapiens (Human)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Purity</b>            | Greater than 85% as determined by SDS-PAGE.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   |
| <b>Sequence</b>          | SDVLELTDDNFESRISDTGSAGLMLVEFFAPWCGHCKRLAPEYEEAAATRLKGI<br>VPLAKVDCTANTNTCNKYGVSGYPTLKIFRDGEEAGAYDGPRTADGIVSHLKK<br>QAGPASVPLRTEEEFKKFISDKDASIVGFFDDSFSEAHSEFLKAASNLRDNYRF<br>AHTNVESLVNEYDDNGEGILFRPSHLTNKFEDKTVAYTEQKMTSGKIKKFIQE<br>NIFGICPHMTEDNKDLIQGKDLLIAYDYDYEKNAKGSNYWRNRVMMVAKKFL<br>DAGHKLNFAVASRKTFSELSDFGLESTAGEIPVVAIRTAKEKFVMQEEFSR<br>DGKALERFLQDYFDGNLKRYLKSEPIPESNDGPVKVVAENFDEIVNNENKDV<br>LIEFYAPWCGHCKNLEPKYKELGEKLSKDPNIVIAKMDATANDVPSPYEVRGFP<br>TIYFSPANKKLNPKKYEGGRELSDFISYLQREATNPPVIQEEKPKKKKKAQEDL |
| <b>Research Area</b>     | Signal Transduction                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Source</b>            | E.coli                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |
| <b>Target Names</b>      | PDIA3                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <b>Protein Names</b>     | 58 kDa glucose-regulated protein 58 kDa microsomal protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>Expression Region</b> | 25-505aa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Notes</b>             | Repeated freezing and thawing is not recommended. Store working aliquots at 4°C for up to one week.                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Tag Info</b>          | N-terminal 10xHis-tagged and C-terminal Myc-tagged                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>Mol. Weight</b>       | 59.3 kDa                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>Protein Length</b>    | Full Length of Mature Protein                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Image</b>             |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |



(Tris-Glycine gel) Discontinuous SDS-PAGE (reduced) with 5% enrichment gel and 15% separation gel.

## Description

The expression region of this recombinant Human PDIA3 covers amino acids 25-505. The theoretical molecular weight of the PDIA3 protein is 59.3 kDa. This protein is generated in a e.coli-based system. The PDIA3 coding gene included the N-terminal 10xHis tag and C-terminal Myc tag, which simplifies the detection and purification processes of the recombinant PDIA3 protein in following stages of expression and purification.

Protein disulfide-isomerase A3 (PDIA3), also known as endoplasmic reticulum protein 57 (ERp57), is a member of the protein disulfide-isomerase (PDI) family. PDIA3 plays a crucial role in protein folding and quality control within the endoplasmic reticulum (ER), where it aids in the formation and rearrangement of disulfide bonds in newly synthesized proteins. As a thiol-disulfide oxidoreductase, PDIA3 contributes to the correct folding of glycoproteins and helps maintain ER homeostasis. It interacts with major histocompatibility complex class I (MHC-I) molecules, facilitating their assembly and transport to the cell surface for antigen presentation. PDIA3 is also involved in various cellular processes, including regulation of apoptosis and modulation of cell signaling pathways. Research on PDIA3 encompasses its roles in protein folding, ER stress response, immune system function, and its implications in diseases such as cancer and neurodegenerative disorders.

## Reconstitution

We recommend that this vial be briefly centrifuged prior to opening to bring the contents to the bottom. Please reconstitute protein in deionized sterile water to a concentration of 0.1-1.0 mg/mL. We recommend to add 5-50% of glycerol (final concentration) and aliquot for long-term storage at -20°C/-80°C. Our default final concentration of glycerol is 50%. Customers could use it as reference.

## Shelf Life

The shelf life is related to many factors, storage state, buffer ingredients, storage temperature and the stability of the protein itself. Generally, the shelf life of liquid form is 6 months at -20°C/-80°C. The shelf life of lyophilized form is 12 months at -20°C/-80°C.