

# Recombinant human GRP58/PDIA3 protein

Catalog Number: ATGP0462

## PRODUCT INFORMATION

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**Expression system**

E.coli

**Domain**

25-505aa

**UniProt No.**

P30101

**NCBI Accession No.**

NP\_005304.3

**Alternative Names**

Protein disulfide isomerase family A member 3, Glucose regulated protein 58kDa, GPR58, Protein disulfide isomerase-associated 3, 58 kDa microsomal protein, P58, ERp61, Endoplasmic reticulum resident protein 57, ER protein 57, ERp57, Disulfide isomerase ER-60, Endoplasmic reticulum resident protein 60, ER protein 60, ERp60, GRP57, PI-PLC, HsT17083

## PRODUCT SPECIFICATION

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**Molecular Weight**

58.5 kDa (518aa) confirmed by MALDI-TOF

**Concentration**

1mg/ml (determined by Bradford assay)

**Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 1mM DTT, 0.1 M NaCl, and 10% glycerol

**Purity**

&gt; 95% by SDS-PAGE

**Tag**

His-Tag

**Application**

SDS-PAGE

**Storage Condition**

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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**Description**

PDIA3, also known as protein disulfide-isomerase A3, is a protein of the endoplasmic reticulum that interacts with lectin chaperones calreticulin and calnexin to modulate folding of newly synthesized glycoproteins. This protein has protein disulfide isomerase activity. PDIA3 is also part of the major histocompatibility complex (MHC)

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class I peptide-loading complex (TAP1), which is essential for formation of the final antigen conformation and export from the endoplasmic reticulum to the cell surface. Recombinant human PDIA3 protein, fused to His-tag at N-terminus, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

<MRGSHHHHHH GMASMTGGQQ MGRDLYDDDD KDRWGSM>SDV LELTDDNFES RISDTGSAGL MLVEFFAPWC  
GHCKRLAPEY EAAATRLKGI VPLAKVDCTA NTNTCNKYGV SGYPTLKIFR DGEEAGAYDG PRTADGIVSH LKKQAGPASV  
PLRTEEEFKK FISDKDASIV GFFDDSFSEA HSEFLKAASN LRDNYRFAHT NVESLVNEYD DNGEGILFR PSHLTNKFED  
KTVAYTEQKM TSGKIKKFIQ ENIFGICPHM TEDNKDLIQG KDLLIAYYDV DYEKNAKGSN YWRNRVMMVA KKFLDAGHKL  
NFAVASRKTf SHELSDFGLE STAGEIPVVA IRTAKGEKfV MQEEFSRDGK ALERFLQDYF DGNLKRYLKS EPIPESNDGP  
VKVVVAENFD EIVNNENKDV LIEFYAPWCG HCKNLEPKYK ELGEKLSKDP NIVIAKMDAT ANDVPSPYEV RGFPTIYFSP  
ANKKLNPKKY EGGRELSDFI SYLQREATNP PVIQEEKPKK KKKAQEDL

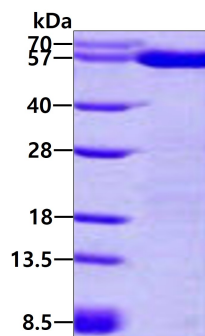
## General References

Vigneron N., et al. (2009) *Eur J Immunol.* 39(9):2371-6.

Forster ML., et al. (2009) *J Biol Chem.* 284(19):13045-56.

## DATA

### SDS-PAGE



3 $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.