

**Goat Anti-PDIA3 / ERp57 / GRP58 Antibody**  
Peptide-affinity purified goat antibody  
Catalog # AF1806a

**Specification**

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**Goat Anti-PDIA3 / ERp57 / GRP58 Antibody - Product Information**

Application	WB, E
Primary Accession	<a href="#">P30101</a>
Other Accession	<a href="#">NP_005304</a> , <a href="#">2923</a> , <a href="#">14827 (mouse)</a> , <a href="#">29468 (rat)</a>
Reactivity	Human, Mouse
Predicted	Rat
Host	Goat
Clonality	Polyclonal
Concentration	100ug/200ul
Isotype	IgG
Calculated MW	56782

**Goat Anti-PDIA3 / ERp57 / GRP58 Antibody - Additional Information**

**Gene ID** 2923

**Other Names**

Protein disulfide-isomerase A3, 5.3.4.1, 58 kDa glucose-regulated protein, 58 kDa microsomal protein, p58, Disulfide isomerase ER-60, Endoplasmic reticulum resident protein 57, ER protein 57, ERp57, Endoplasmic reticulum resident protein 60, ER protein 60, ERp60, PDIA3, ERP57, ERP60, GRP58

**Dilution**

WB~~1:1000  
E~~N/A

**Format**

0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

**Storage**

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

**Precautions**

Goat Anti-PDIA3 / ERp57 / GRP58 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Goat Anti-PDIA3 / ERp57 / GRP58 Antibody - Protein Information**

**Name** PDIA3 ([HGNC:4606](#))

## Synonyms ERP57, ERP60, GRP58

### Function

Protein disulfide isomerase that catalyzes the formation, isomerization, and reduction or oxidation of disulfide bonds in client proteins and functions as a protein folding chaperone (PubMed:<a href="http://www.uniprot.org/citations/11825568" target="\_blank">11825568</a>, PubMed:<a href="http://www.uniprot.org/citations/16193070" target="\_blank">16193070</a>, PubMed:<a href="http://www.uniprot.org/citations/27897272" target="\_blank">27897272</a>, PubMed:<a href="http://www.uniprot.org/citations/36104323" target="\_blank">36104323</a>, PubMed:<a href="http://www.uniprot.org/citations/7487104" target="\_blank">7487104</a>). Core component of the major histocompatibility complex class I (MHC I) peptide loading complex where it functions as an essential folding chaperone for TAPBP. Through TAPBP, assists the dynamic assembly of the MHC I complex with high affinity antigens in the endoplasmic reticulum. Therefore, plays a crucial role in the presentation of antigens to cytotoxic T cells in adaptive immunity (PubMed:<a href="http://www.uniprot.org/citations/35948544" target="\_blank">35948544</a>, PubMed:<a href="http://www.uniprot.org/citations/36104323" target="\_blank">36104323</a>).

### Cellular Location

Endoplasmic reticulum. Endoplasmic reticulum lumen {ECO:0000250|UniProtKB:P11598}. Melanosome Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:12643545).

### Tissue Location

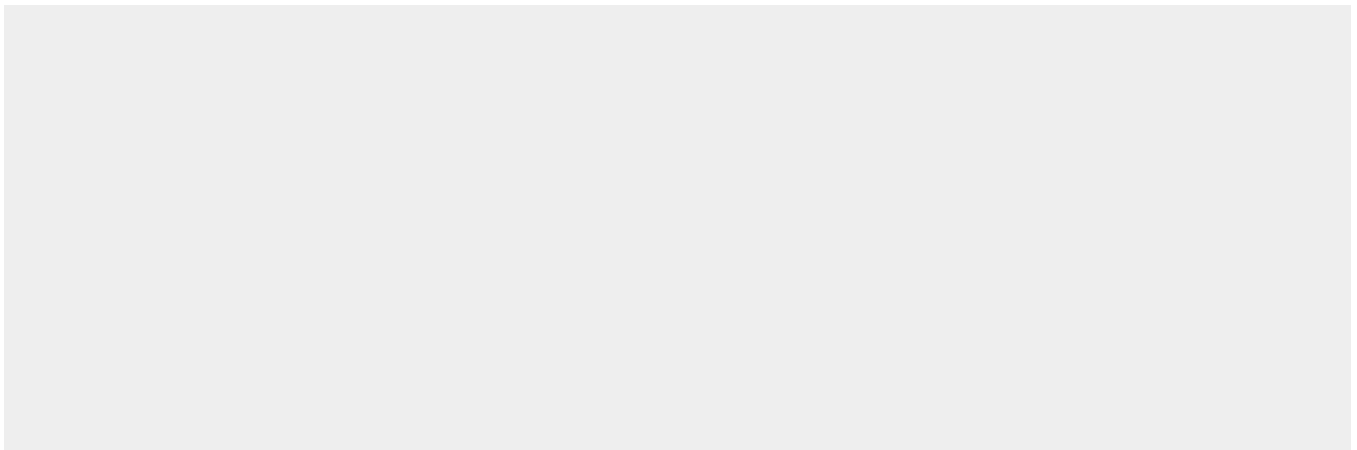
Detected in the flagellum and head region of spermatozoa (at protein level) (PubMed:20400973). Expressed in liver, stomach and colon (at protein level). Expressed in gastric parietal cells and chief cells (at protein level) (PubMed:24188822)

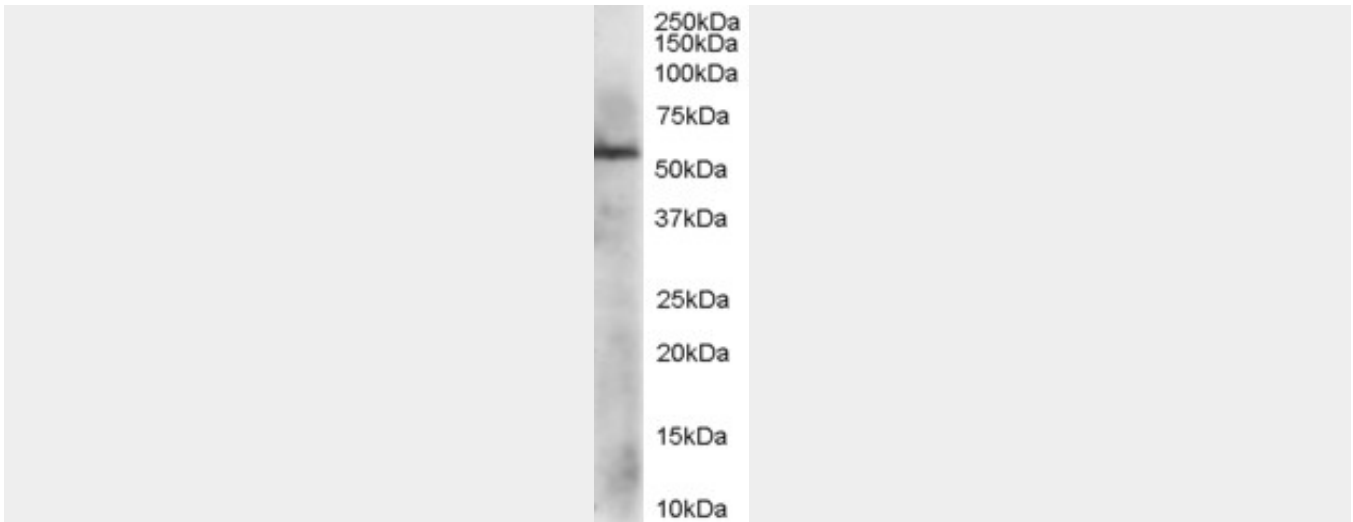
## Goat Anti-PDIA3 / ERp57 / GRP58 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Goat Anti-PDIA3 / ERp57 / GRP58 Antibody - Images





AF1806a staining (1  $\mu$ g/ml) of HepG2 lysate (RIPA buffer, 35  $\mu$ g total protein per lane). Primary incubated for 1 hour. Detected by western blot using chemiluminescence.

### **Goat Anti-PDIA3 / ERp57 / GRP58 Antibody - Background**

This gene encodes a protein of the endoplasmic reticulum that interacts with lectin chaperones calreticulin and calnexin to modulate folding of newly synthesized glycoproteins. The protein was once thought to be a phospholipase; however, it has been demonstrated that the protein actually has protein disulfide isomerase activity. It is thought that complexes of lectins and this protein mediate protein folding by promoting formation of disulfide bonds in their glycoprotein substrates.

### **Goat Anti-PDIA3 / ERp57 / GRP58 Antibody - References**

Nuclear translocation of the 1,25D3-MARRS (membrane associated rapid response to steroids) receptor protein and NFkappaB in differentiating NB4 leukemia cells. Wu W, et al. *Exp Cell Res*, 2010 Apr 15. PMID 20064506.

Differential expression of apoptotic genes PDIA3 and MAP3K5 distinguishes between low- and high-risk prostate cancer. Pressinotti NC, et al. *Mol Cancer*, 2009 Dec 27. PMID 20035634.

Protein disulfide isomerase chaperone ERP-57 decreases plasma membrane expression of the human GnRH receptor. Ayala Y $\ddot{u}$ ez R, et al. *Cell Biochem Funct*, 2010 Jan. PMID 20029959.

Role of ERp57 in the signaling and transcriptional activity of STAT3 in a melanoma cell line. Chichiarelli S, et al. *Arch Biochem Biophys*, 2010 Feb 15. PMID 19995546.

Comparative proteomic analysis of paclitaxel sensitive A2780 epithelial ovarian cancer cell line and its resistant counterpart A2780TC1 by 2D-DIGE: the role of ERp57. Cicchillitti L, et al. *J Proteome Res*, 2009 Apr. PMID 19714814.