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Datasheet for ABIN361815

## anti-PDIA3 antibody

4 Images

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### Overview

Quantity:	200 µg
Target:	PDIA3
Reactivity:	Human
Host:	Mouse
Clonality:	Monoclonal
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP), Immunocytochemistry (ICC)

### Product Details

Immunogen:	Human recombinant ERp57 (Grp58)
Clone:	Map-ERp57
Isotype:	IgG1
Specificity:	Detects ~57 kDa.
Cross-Reactivity:	Cow, Dog, Guinea Pig, Hamster, Human, Monkey, Mouse, Pig, Rabbit, Rat
Purification:	Protein G Purified

### Target Details

Target:	PDIA3
Alternative Name:	ERp57 ( <a href="#">PDIA3 Products</a> )
Background:	ERp57, also known as Glucose Regulated Protein 58 (Grp58), Hormone-Induced Protein-70

## Target Details

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(HIP-70) and microsomal Carnitine Palmitoyltransferase, is a member of the protein disulfide isomerase family, containing two canonical CXHC tetrapeptide active site motifs (1-5). It has quite a few diverse roles. It functions as an accessory oxidoreductase involved in disulfide bond formation. In the ER, ERp57 interacts with membrane bound calnexin and soluble calreticulin (lectin chaperones) via their praline rich P-domain arms. Lectin chaperones bind nascent non-native glycoproteins, and position ERp57 to act upon the immature or misfolded glycoproteins that possess mono-glycosylated side chains. ERp57 deletion impairs posttranslational phases of influenza hema-glutinin folding, and causes accelerated release of MHC-I molecules, resulting in the coupling of sub-optimal peptides and reduced expression and stability on the cell surface (6). ERp57 also contains two thioredoxin active-site sequences, CGHC and an estrogen-binding domain. ERp57 is induced by both estrogen and leuteinizing-hormone-releasing hormone in the hippocampus (7).

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Gene ID: 2923

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NCBI Accession: [NP\\_005304](#)

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UniProt: [P30101](#)

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Pathways: [Maintenance of Protein Location](#), [Protein targeting to Nucleus](#), [Cell RedoxHomeostasis](#)

## Application Details

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Application Notes:

- WB (1:2000)
- IHC (1:100)
- ICC/IF (1:100)
- optimal dilutions for assays should be determined by the user.

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Comment: 0.5 µg/ml of ABIN361814 was sufficient for detection of ERp57 in 10 µg of heat shock HeLa Lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.

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Restrictions: For Research Use only

## Handling

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Format: Liquid

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Concentration: 1 mg/mL

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Buffer: PBS pH 7.4, 50 % glycerol, 0.09 % sodium azide, Storage buffer may change when conjugated

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Preservative: Sodium azide

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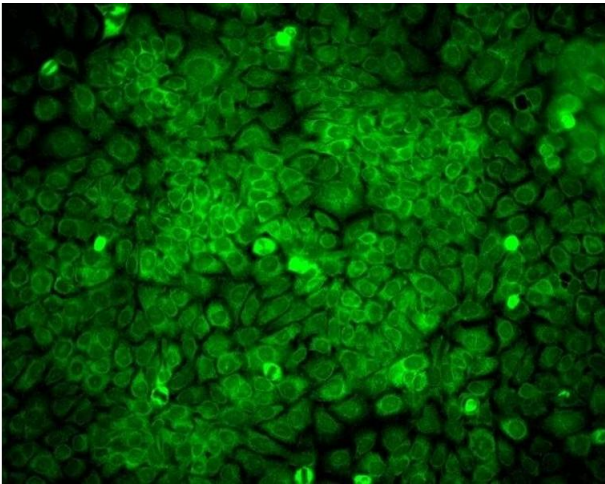
## Handling

Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.
Storage:	-20 °C
Storage Comment:	-20°C

## Publications

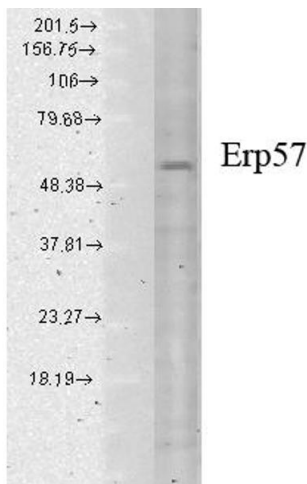
Product cited in: Chen, Cai, Liu: "A single molecule assay for ultrasensitive detection of Fn14 in human serum." in: **Analytical biochemistry**, Vol. 587, pp. 113467, (2020) ([PubMed](#)).

## Images



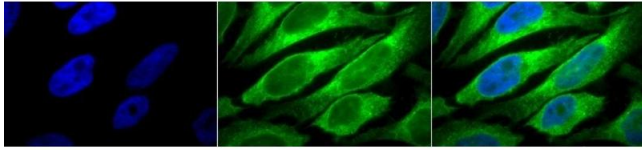
### Immunocytochemistry

**Image 1.** Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Erp57 Monoclonal Antibody, Clone Map.ERP57 (ABIN361814 and ABIN361815). Tissue: HaCaT cells. Species: Human. Fixation: Cold 100 % methanol for 10 minutes at -20 °C. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody (ABIN361814 and ABIN361815) at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Cytoplasmic and perinuclear staining.



### Western Blotting

**Image 2.** Erp57 Western Blotting 1 in 1000 Hu copy.



### Immunocytochemistry

**Image 3.** Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Erp57 (Grp58) Monoclonal Antibody, Clone Map.ERP57 (ABIN361814 and ABIN361815). Tissue: Heat Shocked cervical cancer cells (HeLa). Species: Human. Fixation: 2 % Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Erp57 (Grp58) Monoclonal Antibody (ABIN361814 and ABIN361815) at 1:100 for 12 hours at 4 °C. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:200 for 2 hours at RT. Counterstain: DAPI (blue) nuclear stain at 1:40000 for 2 hours at RT. Localization: Endoplasmic reticulum lumen. Melanosome. Magnification: 100x. (A) DAPI (blue) nuclear stain. (B) Anti-Erp57 (Grp58) Antibody. (C) Composite. Heat Shocked at 42 °C for 1h.

Please check the [product details page](#) for more images. Overall 4 images are available for ABIN361815.