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PDIA3 Antibody (C-term)

Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AW5556

Specification

PDIA3 Antibody (C-term) - Product Information

Application	**WB, IHC-P, FC,E**
Primary Accession	P30101
Reactivity	**Human, Mouse**
Host	**Rabbit**
Clonality	**Polyclonal**
Calculated MW	**H=57;M=57;R=57 KDa**
Isotype	**Rabbit IgG**
Antigen Source	**HUMAN**

PDIA3 Antibody (C-term) - Additional Information

Gene ID 2923

Antigen Region
446-475

Other Names
Protein disulfide-isomerase A3, 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
IHC-P~~1:50~100
FC~~1:10~50

Target/Specificity
This PDIA3 antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 446-475 amino acids from the C-terminal region of human PDIA3.

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

Precautions
PDIA3 Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

PDIA3 Antibody (C-term) - 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:11825568, PubMed:16193070, PubMed:27897272, PubMed:36104323, PubMed:7487104). 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:35948544, PubMed:36104323).

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)

PDIA3 Antibody (C-term) - Protocols

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

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

PDIA3 Antibody (C-term) - Images

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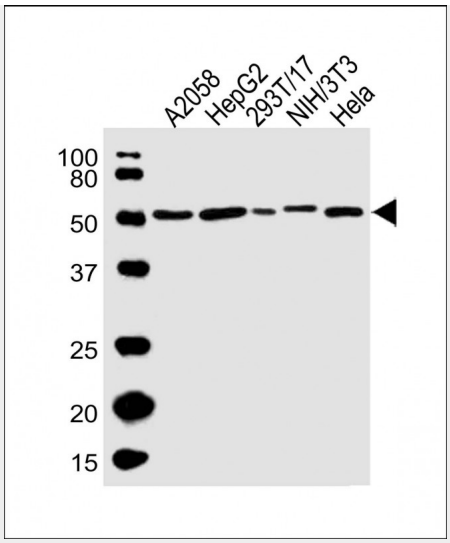
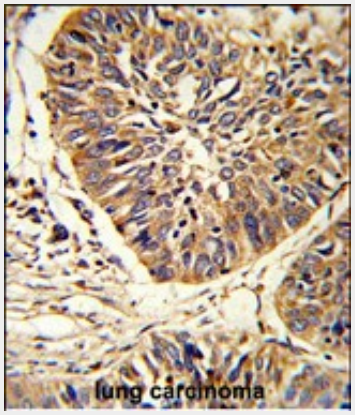
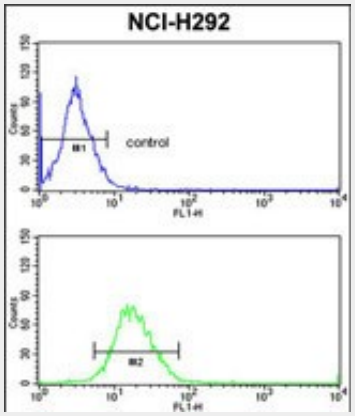


All lanes : Anti-PDIA3 Antibody (C-term) at 1:1000 dilution Lane 1: A2058 whole cell lysate Lane 2: HepG2 whole cell lysate Lane 3: 293T/17 whole cell lysate Lane 4: NIH/3T3 whole cell lysate Lane 5: Hela whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 57 kDa Blocking/Dilution buffer: 5% NFDM/TBST.



Formalin-fixed and paraffin-embedded human lung carcinoma reacted with PDIA3 Antibody (C-term), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



PDIA3 Antibody (C-term) (Cat. #AW5556) flow cytometric analysis of NCI-H292 cells (bottom histogram) compared to a negative control cell (top histogram).FITC-conjugated goat-anti-rabbit

secondary antibodies were used for the analysis.

PDIA3 Antibody (C-term) - Background

PDIA3 is 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.

PDIA3 Antibody (C-term) - References

Vigneron,N., et.al., Eur. J. Immunol. 39 (9), 2371-2376 (2009)
Xu,D.,et.al., Am. J. Physiol. Lung Cell Mol. Physiol. 297 (1), L44-L51 (2009)