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PDIA3 Antibody (Center) Blocking Peptide
Synthetic peptide
Catalog # BP2922c

Specification

PDIA3 Antibody (Center) Blocking Peptide - Product Information

Primary Accession P30101

PDIA3 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 2923

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

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP2922c was selected from the Center region of human PDIA3. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

PDIA3 Antibody (Center) Blocking Peptide - 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:7487104, PubMed:11825568, PubMed:16193070, PubMed:27897272, PubMed:36104323). 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 (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

PDIA3 Antibody (Center) Blocking Peptide - Images

PDIA3 Antibody (Center) Blocking Peptide - 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 (Center) Blocking Peptide - 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)