Mouse Erp57 (Grp58) Monoclonal Antibody | anti-PDIA3 antibody

Erp57 (Grp58) Antibody: RPE

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103101	**Mouse**	**Human, Mouse, Bovine, Canine, Guinea pig, Hamster, Monkey, Pig, Rabbit, Rat**	**Immunohistochemistry, Immunoprecipitation, Western Blot**

PRODUCT SYNONYMS

Erp57 (Grp58); Monoclonal Antibody; Erp57 (Grp58) Antibody: RPE; ERp60; ERp61; Grp57; Grp58; P58; PDIA3; PI PLC; anti-PDIA3 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human, Mouse, Bovine, Canine, Guinea pig, Hamster, Monkey, Pig, Rabbit, Rat
Clonality	Monoclonal
Isotype	IgG1
Clone Number	Map.ERP57
Form/Format	Protein G Purified
Concentration	1mg/mL (varies by lot)
Sequence Length	505
Applicable Applications for anti-PDIA3 antibody	IHC (Immunohistochemistry), IP (Immunoprecipitation), WB (Western Blot)
Conjugate	RPE
Storage Buffer	PBS pH7.4, 50% glycerol, 0.09% sodium azide
Preparation and Storage	-20 degree C

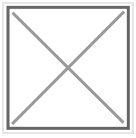
IMAGES



ICC (Immunocytochemistry)
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Erp57 Monoclonal Antibody, Clone Map.ERP57. Tissue: HaCaT cells. Species: Human. Fixation: Cold 100% methanol for 10 minutes at -20 degree C. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody 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.



WB (Western Blot)
Western Blot analysis of Human cell lysates showing detection of Erp57 protein using Mouse Anti-Erp57 Monoclonal Antibody, Clone Map.ERP57. Load: 15 ug. Block: 1.5% BSA for 30 minutes at RT. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Sheep Anti-Mouse IgG: HRP for 1 hour at RT.



IHC (Immunohistochemistry)
Immunohistochemistry analysis using Mouse Anti-Erp57 Monoclonal Antibody, Clone Map.ERP57. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody at 1:100 for 1 hour at RT. Secondary Antibody: FITC Goat Anti-Mouse (green) at 1:50 for 1 hour at RT. Localization: Epidermis and Hair Follicles.

ADDITIONAL INFORMATION

Related Product Information for anti-PDIA3 antibody	**Background Info:** Detects ~57kDa. **Scientific Background:** ERp57, also known as Glucose Regulated Protein 58 (Grp58), Hormone-Induced Protein-70 (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).
Product Categories/Family for anti-PDIA3 antibody	Heat Shock; Organelle Markers
References	1. Herbert D.N. and Molinari M. (2007) Physiol Rev. 87: 1377-1408. 2. Williams D.B. (2005) J Cell Sci. 119: 615-623 3. Maattanen P., et al. (2006) Biochem Cell Biol. 84: 881-889. 4. Oliver J.D., et al. (1999) Mol Bio Cell. 10: 2573-2582. 5. Oliver J.D., et al. (1997) Science 275: 86-88. 6. Solda T., et al. (2006) J Biol Chem 281: 6219-6226. 7. Kimura T., et al. (2005) Biochem Biophys Research Communications. 331 (1): 224-230. 8. Chen, G., et al. (2002) Clin Cancer Res 8(7): 2298-2305. 9. Tan, P., et al. F. (2002) J Immunol 168(4): 1950-1960. 1. Lynes, E.M. et al. (2013). Palmitoylation is the Switch that Assigns Calnexin to Quality Control or ER Calcium Signaling. J Cell Sci. Advance Online Article July 10, 2013. doi: 10.1242/jcs.125856

NCBI AND UNIPROT INFORMATION

NCBI GI #	21361657
NCBI GeneID	2923
NCBI Accession #	NP_005304.3
NCBI GenBank Nucleotide #	NM_005313.4
UniProt Accession #	P30101; Q13453; Q14255; Q8IYF8; Q9UMU7; AAB37397
Molecular Weight	56,782 Da
NCBI Official Full Name	protein disulfide-isomerase A3
NCBI Official Synonym Full Names	protein disulfide isomerase family A, member 3
NCBI Official Symbol	PDIA3
NCBI Official Synonym Symbols	P58; ER60; ERp57; ERp60; ERp61; GRP57; GRP58; PI-PLC; HsT17083; HEL-S-269; HEL-S-93n
NCBI Protein Information	protein disulfide-isomerase A3; ER protein 57; ER protein 60; phospholipase C-alpha; 58 kDa microsomal protein; disulfide isomerase ER-60; endoplasmic reticulum P58; 58 kDa glucose-regulated protein; glucose regulated protein, 58kDa; epididymis secretory protein Li 269; protein disulfide isomerase-associated 3; endoplasmic reticulum resident protein 57; endoplasmic reticulum resident protein 60; epididymis secretory sperm binding protein Li 93n

UniProt Protein Name	Protein disulfide-isomerase A3
UniProt Gene Name	**PDIA3**
UniProt Synonym Gene Names	ERP57; ERP60; GRP58; p58; ER protein 57; ERp57; ER protein 60; ERp60
UniProt Entry Name	PDIA3_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

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Online datasheet: https://stage.aaabiotech.com/monoclonal/erp57-grp58-antibody-clone-map-erp57-immunohistochemistry-immunoprecipitation-western-blot-elisa/103101