

Mouse anti-Human ERp57 Monoclonal Antibody | anti-ERp57 antibody

ERp57 Antibody, Clone 4F9: ATTO 488

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA103925	Mouse	Human	Immunofluorescence, Immunocytochemistry, Western Blot

PRODUCT SYNONYMS

ERp57; Monoclonal Antibody; ERp57 Antibody; Clone 4F9: ATTO 488; Mouse Anti-Human ERp57 Monoclonal IgG2b; ERp57 Antibody: ATTO 488; ERp60 Antibody; ERp61 Antibody; Grp57 Antibody; Grp58 Antibody; P58 Antibody; PDIA3 Antibody; PI PLC Antibody; 58 kDa glucose regulated protein Antibody; 58 kDa glucose-regulated protein Antibody; 58 kDa microsomal protein Antibody; Disulfide isomerase ER 60 Antibody; Disulfide isomerase ER-60 Antibody; Endoplasmic reticulum resident protein 57 Antibody; Endoplasmic reticulum resident protein 60 Antibody; ER p57 Antibody; ER protein 57 Antibody; ER protein 60 Antibody; ERp 57 Antibody; Glucose Regulated Protein 58 Kd Antibody; GRP 57 Antibody; GRP 58 Antibody; GRP57 Antibody; HsT17083 Antibody; p58 Antibody; PDIA 3 Antibody; PDIA3_HUMAN Antibody; Phospholipase C alpha Antibody; Protein disulfide isomerase A3 Antibody; Protein disulfide isomerase family A member 3 Antibody; Protein disulfide-isomerase A3 Antibody; anti-ERp57 antibody

PRODUCT SPECIFICATIONS

Host	Mouse
Reactivity	Human
Clonality	Monoclonal
Isotype	IgG2b
Clone Number	4F9
Specificity	Detects ~57 kDa protein.
Purity/Purification	Protein G Purified
Concentration	1 mg/ml (varies by lot)
Sequence Length	505
Applicable Applications for anti-ERp57 antibody	IF (Immunofluorescence), ICC (Immunocytochemistry), WB (Western Blot)
Target	ERp57
Immunogen	Human recombinant ERp57 (Grp58) protein corresponding to amino acids 25- 505 (his-tagged)
Immunogen Species	Human
Cellular Localization	Endoplasmic Reticulum; Endoplasmic Reticulum Lumen; Melanosome
Conjugate	ATTO 488
Storage Buffer	PBS pH 7.4, 50% glycerol, 0.09% Sodium Azide
Preparation and Storage	Store at -20 degree C.

IMAGES



WB (Western Blot)

Western Blot analysis of Human Cervical Cancer cell line (HeLa) showing detection of 57 kDa Erp57 protein using Mouse Anti-Erp57 Monoclonal Antibody, Clone 4F9 . Lane 1: Molecular Weight Ladder (MW). Lane 2: HeLa cell lysate. Load: 15 ug. Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 60 min at RT. Development: ECL solution for 5 min in RT. Predicted/Observed Size: 57 kDa.



ICC (Immunocytochemistry)

Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Erp57 Monoclonal Antibody, Clone 4F9 . Tissue: HeLa Cells (Human Cervical Cancer). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody at 1:100 for 60 min at RT. Secondary Antibody: Goat Anti-Mouse ATTO 488 at 1:200 for 60 min at RT. Counterstain: Phalloidin Texas Red F-Actin stain; DAPI (blue) nuclear stain at 1:1000, 1:5000 for 60 min at RT, 5 min at RT. Localization: Endoplasmic reticulum, Melanosome. Magnification: 60X. (A) DAPI (blue) nuclear stain (B) Phalloidin Texas Red F-Actin stain (C) ERp57 Antibody (D) Composite.

ADDITIONAL INFORMATION

Related Product Information for anti-ERp57 antibody	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-ERp57 antibody	Antibodies; Cell Signaling; Protein Trafficking; ER Proteins
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.

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
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
UniProt Protein Name	Protein disulfide-isomerase A3
UniProt Gene Name	PDIA3

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-antibody-clone-4f9-immunofluorescence-immunocytochemistry-western-blot-elisa/103925>