

Product Datasheet

ERp57 (GRP58) Antibody: Biotin (orb147636)

Description	Mouse monoclonal to Erp57 (Biotin). 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 proline 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. 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..
Species/Host	Mouse
Reactivity	Bovine, Canine, Guinea pig, Hamster, Human, Monkey, Mouse, Porcine, Rabbit, Rat
Conjugation	Biotin
Tested Applications	ELISA, ICC, IF, IHC, WB
Immunogen	Human recombinant ERp57 (Grp58)
Target	ERp57
Preservatives	136.36mM Ethanolamine, and 9.55mM Sodium Bicarbonate in 95.45% PBS
Concentration	1 mg/ml
Storage	Conjugated antibodies should be stored according to the product label

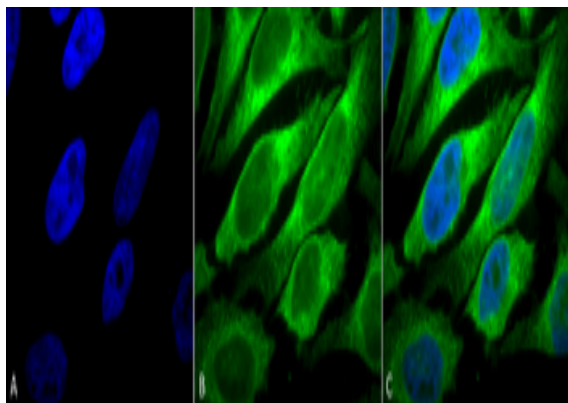
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Note	For research use only
Application notes	0.5 µg/ml of SMC-168 was sufficient for detection of ERp57 in 10 µg of heat shock HeLa Lysate by colorimetric immunoblot analysis using Goat anti-mouse IgG:HRP as the secondary antibody.
Isotype	IgG1
Clonality	Monoclonal
Clone Number	Map.ERp57
MW	57kDa
Uniprot ID	P30101
NCBI	NP_005304.3
Entrez	2923
Dilution Range	WB (1:2000), IHC (1:100), ICC/IF (1:100)
Expiration Date	12 months from date of receipt.



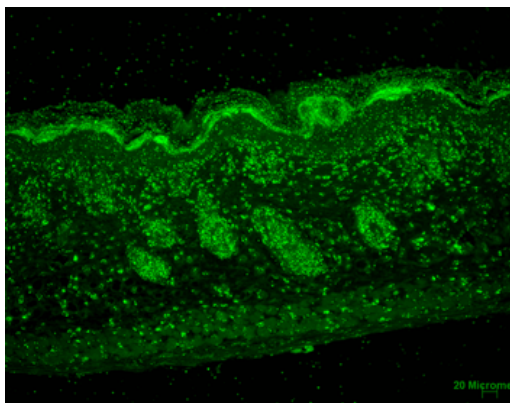
Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-Erp57 (Grp58) Monoclonal Antibody, Clone Map.ERP57. Tissue: Heat Shocked cervical cancer cells (HeLa). Species: Human. Fixation: 2% Formaldehyde for 20 min at RT. Primary Antibody: Mouse Anti-Erp57 (Grp58) Monoclonal Antibody at 1:100 for 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.

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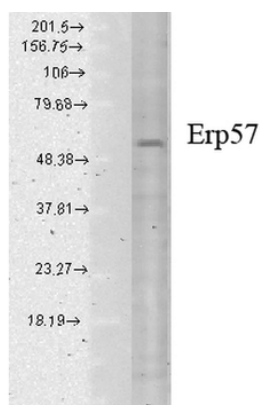
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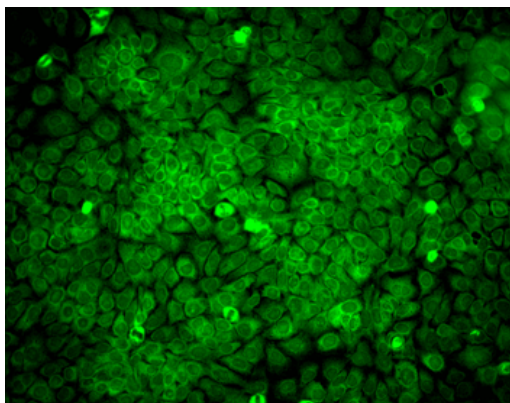
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Immunohistochemistry analysis using Mouse Anti-Erp57 Monoclonal Antibody, Clone Map.ERP57. Tissue: backskin. Species: Mouse. Fixation: Bouin's Fixative and paraffin-embedded. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody at 1:100 for 1 hour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



Western Blot analysis of Human cell lysates showing detection of Erp57 protein using Mouse Anti-Erp57 Monoclonal Antibody, Clone Map.ERP57. Load: 15 µg. 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.



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°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.

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