

## Product Datasheet

### ERp57 Antibody (APC) (orb147635)

<b>Catalog Number</b>	orb147635
<b>Category</b>	Antibodies
<b>Description</b>	<p>Mouse monoclonal to Erp57 (APC). 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. 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..</p>
<b>Target</b>	ERp57
<b>Clonality</b>	Monoclonal
<b>Species/Host</b>	Mouse
<b>Isotype</b>	IgG1
<b>Conjugation</b>	APC
<b>Reactivity</b>	Bovine, Canine, Guinea pig, Hamster, Human, Monkey, Mouse, Porcine, Rabbit, Rat
<b>Concentration</b>	1 mg/ml

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)  
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

<b>Buffer/Preservatives</b>	95.46mM Phosphate, 2.48mM MES and 2mM EDTA
<b>Purification</b>	Protein G Purified
<b>Immunogen</b>	Human recombinant ERp57 (Grp58)
<b>UniProt ID</b>	<b>P30101</b>
<b>MW</b>	57kDa
<b>Tested applications</b>	ICC, IF, IHC, IP, WB
<b>Dilution range</b>	WB (1:2000), IHC (1:100), ICC/IF (1:100)
<b>Application notes</b>	0.5 µg/ml 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.
<b>Specificity</b>	Detects ~57kDa.
<b>Clone Number</b>	Map.ERp57
<b>Storage</b>	Conjugated antibodies should be stored according to the product label
<b>Note</b>	For research use only
<b>Entrez</b>	<b>2923</b>
<b>NCBI</b>	<b>NP_005304.3</b>
<b>Expiration Date</b>	12 months from date of receipt.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

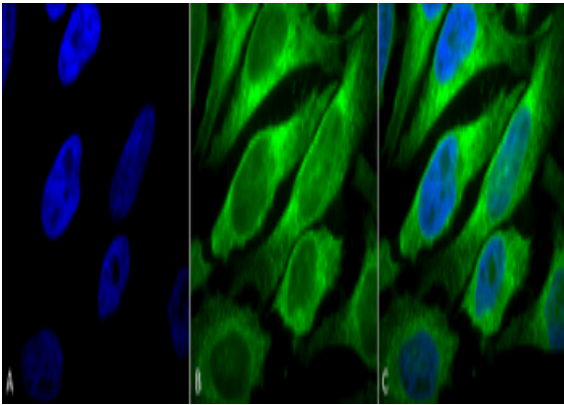
Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

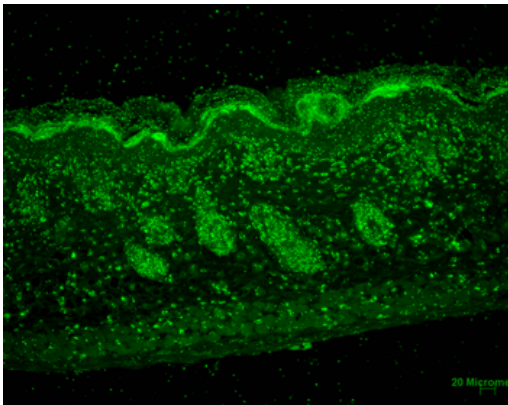
68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

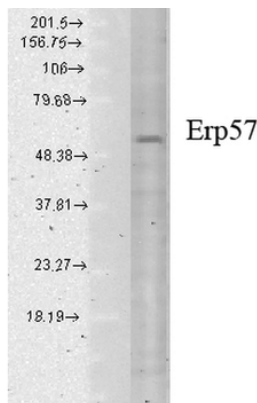
Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)



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.



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.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

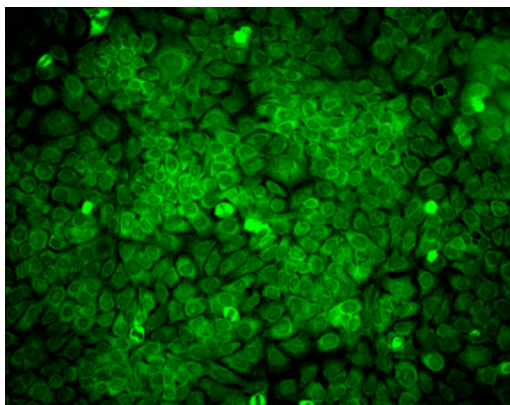
Phone: +44 (0)1223 859353 | Fax: +1 (415) 651-8558

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: +1 (415) 906-5211 | Fax: +1 (415) 651-8558



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.

**Biorbyt Ltd.**

7 Signet Court, Swann Road  
Cambridge  
CB5 8LA  
United Kingdom

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+44 \(0\)1223 859353](tel:+44(0)1223859353) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)

**Biorbyt LLC**

68 TW Alexander Drive  
Research Triangle Park  
Durham  
NC 27713  
United States

Email: [info@biorbyt.com](mailto:info@biorbyt.com), [support@biorbyt.com](mailto:support@biorbyt.com)

Phone: [+1 \(415\) 906-5211](tel:+1(415)906-5211) | Fax: [+1 \(415\) 651-8558](tel:+1(415)651-8558)