

**ERp57 Antibody**  
**ERp57 Antibody, Clone 4F9**  
**Catalog # ASM10174****Specification**

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**ERp57 Antibody - Product Information**

|                   |                             |
|-------------------|-----------------------------|
| Application       | <b>WB</b>                   |
| Primary Accession | <a href="#">P30101</a>      |
| Other Accession   | <a href="#">NP_005304.3</a> |
| Host              | <b>Mouse</b>                |
| Isotype           | <b>IgG2b</b>                |
| Reactivity        | <b>Human</b>                |
| Clonality         | <b>Monoclonal</b>           |
| Format            | <b>Unconjugated</b>         |

**Description**

Mouse Anti-Human ERp57 Monoclonal IgG2b

**Target/Specificity**

Detects ~57 kDa protein.

**Other Names**

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, ERp57 Antibody, Glucose Regulated Protein 58 Kd Antibody, GRP 57 Antibody, GRP 58 Antibody, GRP57 Antibody, Hst17083 Antibody, p58 Antibody, PDIA 3 Antibody, PDIA3 Antibody, PDIA3\_HUMAN Antibody, Phospholipase C alpha Antibody, PI PLC Antibody, Protein disulfide isomerase A3 Antibody, Protein disulfide isomerase family A member 3 Antibody, Protein disulfide-isomerase A3 Antibody

**Immunogen**

Human recombinant ERp57 (Grp58).

**Purification**

Protein G Purified

Storage **-20°C****Storage Buffer**

PBS pH 7.4, 50% glycerol, 0.9% Sodium Azide

Shipping Temperature **Blue Ice or 4°C****Certificate of Analysis**

A 1:1000 dilution of SMC-266 was sufficient for detection of ERp57 in 15 µg of HeLa by ECL immunoblot analysis using Goat Anti-Mouse IgG:HRP as the secondary Antibody.

**Cellular Localization**

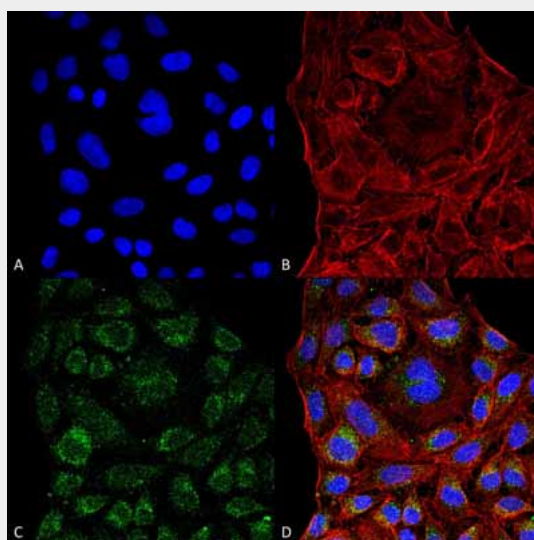
Endoplasmic Reticulum | Endoplasmic Reticulum Lumen | Melanosome

## ERp57 Antibody - Protocols

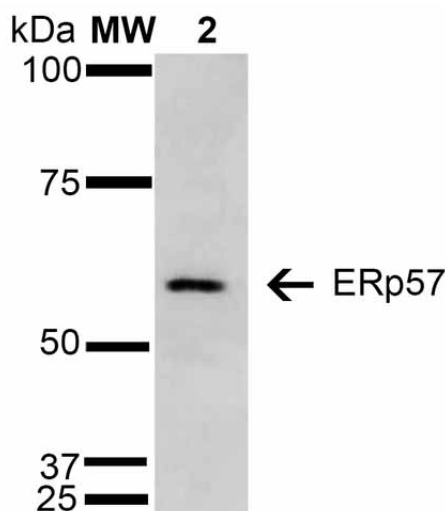
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## ERp57 Antibody - Images



Immunocytochemistry/Immunofluorescence analysis using Mouse Anti-ERp57 Monoclonal Antibody, Clone 4F9 (ASM10174). Tissue: HeLa Cells (Human Cervical Cancer). Species: Human. Fixation: 4% Formaldehyde for 15 min at RT. Primary Antibody: Mouse Anti-ERp57 Monoclonal Antibody (ASM10174) 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.



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 (ASM10174). Lane 1: Molecular Weight Ladder (MW). Lane 2: HeLa cell lysate. Load: 15  $\mu$ g. Block: 5% Skim Milk in TBST. Primary Antibody: Mouse Anti-Erp57 Monoclonal Antibody (ASM10174) at 1:1000 for 2 hours at RT. Secondary Antibody: Goat Anti-Mouse IgG: HRP at 1:1000 for 60 min at RT. Color Development: ECL solution for 5 min in RT. Predicted/Observed Size: 57 kDa.

### Erp57 Antibody - 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 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 hemagglutinin 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).

### Erp57 Antibody - 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.