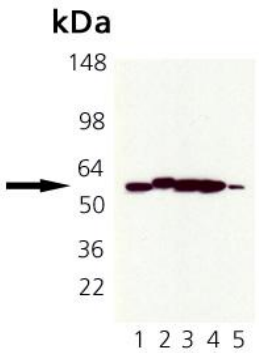
ERp57 (Grp58) Monoclonal Antibody (MaP.Erp57)

Product Specifications

Catalog Number:	SPA-725
Source:	Mouse
Isotype:	IgG_1
Species Reactivity:	Human, canine, pig, hamster, monkey Other species not tested.
Applications:	**WB:** 1:1000 (ECL) Other applications not tested. *The optimal dilution for a specific application must be determined by the investigator*
Predicted M.W.:	~ 58 kDa
Concentration:	See product label
Purification:	Protein G Affinity
Format:	PBS, pH 7.2, 0.09% azide, 50% glycerol
Storage:	Store at -20°C *Shipping conditions may differ from the recommended storage temperature*
Immunogen:	Recombinant human ERp57 protein
Related Products:	
LYC-HL101	HeLa Cell Lysate (Heat Shocked)
SAB-100	Goat anti-Mouse IgG (Fab) Polyclonal Antibody, HRP Conjugate
SPA-585	ERp57 (Grp58) Polyclonal Antibody
SPA-826	Grp78 (BiP) Polyclonal Antibody
SPA-827	KDEL (Grp78, Grp94) Monoclonal Antibody (10C3)



Western Blot Analysis: Lane 1: HeLa Cell Lysate (Heat Shocked), Lane 2: MDCK, Lane 3: CHO-K1, Lane 4: ESK-4, Lane 5: Vero

Background:

ERp57 (also known as Grp58 and ER-60) is a member of the protein disulfide isomerase family, containing two canonical CXHC tetrapeptide active site motifs [1-5]. It functions as an accessory oxidoreductase involved in disulfide bond formation. As an ER resident protein, 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-glucosylated 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].

References:

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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 Biol 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.

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