

#3264 Store at -20C

Ero1-L α Antibody

**Cell Signaling**
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For Research Use Only. Not for Use in Diagnostic Procedures.

Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source:	UniProt ID:	Entrez-Gene Id:
WB	H	Endogenous	60	Rabbit	#Q96HE7	30001

Product Usage Information**Application**

Western Blotting

Dilution

1:1000

StorageSupplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 μ g/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.**Specificity / Sensitivity**Ero1-L α Antibody detects endogenous levels of total Ero1-L α protein.**Source / Purification**Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu218 of human Ero1-L α . Antibodies are purified by protein A and peptide affinity chromatography.**Background**

Secretory proteins translocate into the endoplasmic reticulum (ER) after their synthesis where they are post-translationally modified and properly folded. To reach their native conformation, many secretory proteins require the formation of intra- or inter-molecular disulfide bonds (1). This process is called oxidative protein folding. Several oxidoreductases of the protein disulfide isomerase (PDI) family essential for disulfide formation and isomerization are localized to the ER (2). Studies have found that the ER-residing protein endoplasmic oxidoreductin-1 (Ero1) provides the oxidizing potential to the ER in *Saccharomyces cerevisiae* (3). *In vitro* experiments demonstrated that Ero1 is oxidized by molecular oxygen in a FAD-dependent manner and the oxidized Ero1 in turn serves as an oxidant for PDI (4). Two human homologs of Ero1, Ero1-like (Ero1-L α and β) have been identified (2,5). Ero1-L α is an ER membrane-associated N-glycoprotein that promotes oxidative protein folding and has been shown to be expressed in several cell lines and tissues (2).

Background References

- Huppa, J.B. and Ploegh, H.L. (1998) *Cell* 92, 145-148.
- Cabibbo, A. et al. (2000) *J. Biol. Chem.* 275, 4827-4833.
- Frand, A.R. and Kaiser, C.A. (1998) *Mol. Cell* 1, 161-170.
- Tu, B.P. et al. (2000) *Science* 290, 1571-1574.
- Pagani, M. et al. (2000) *J. Biol. Chem.* 275, 23685-23692.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v BSA, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key**WB:** Western Blotting**Cross-Reactivity Key**

H: human **M:** mouse **R:** rat **Hm:** hamster **Mk:** monkey **Vir:** virus **Mi:** mink **C:** chicken **Dm:** D. melanogaster
X: Xenopus **Z:** zebrafish **B:** bovine **Dg:** dog **Pg:** pig **Sc:** S. cerevisiae **Ce:** C. elegans **Hr:** horse
GP: Guinea Pig **Rab:** rabbit **All:** all species expected

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