#3264 Store at –20°C

Ero1-Lα Antibody

Cell Signaling TECHNOLOGY®

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For Research Use Only. Not For Use In Diagnostic Procedures.

Entrez-Gene ID #30001
Swiss-Prot Acc. #Q96HE7

Applications	Species Cross-Reactivity*	Molecular Wt.	Source
W Endogenous	H	60 kDa	Rabbit**

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-Lα and β) have been identified (2,5). Ero1-Lα 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).

Specificity/Sensitivity: Ero1-Lα Antibody detects endogenous levels of total Ero1-Lα protein.

Source/Purification: Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues surrounding Leu218 of human Ero1-Lα. Antibodies are purified by protein A and peptide affinity chromatography.

Background References:

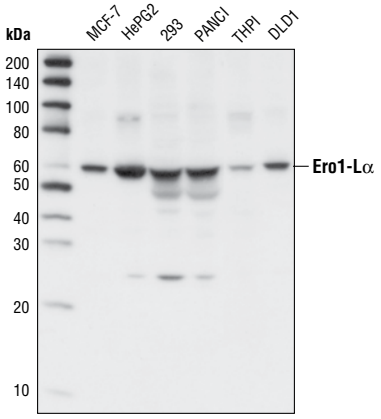
(1) Huppa, J.B. and Ploegh, H.L. (1998) *Cell* 92, 145–148.

(2) Cabibbo, A. et al. (2000) *J. Biol. Chem.* 275, 4827–4833.

(3) Frand, A.R. and Kaiser, C.A. (1998) *Mol. Cell* 1, 161–170.

(4) Tu, B.P. et al. (2000) *Science* 290, 1571–1574.

(5) Pagani, M. et al. (2000) *J. Biol. Chem.* 275, 23685–23692.



Western blot analysis of extracts from various cell lines, using Ero1-Lα Antibody.

Storage: Supplied in 10mM HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C.
Do not aliquot the antibody.

***Species cross-reactivity is determined by western blot.**

****Anti-rabbit secondary antibodies must be used to detect this antibody.**

Recommended Antibody Dilutions:
Western blotting 1:1000

For application specific protocols please see the web page for this product at www.cellsignal.com.

Please visit www.cellsignal.com for a complete listing of recommended companion products.

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

Applications Key: **W**—Western **IP**—Immunoprecipitation **IHC**—Immunohistochemistry **ChIP**—Chromatin Immunoprecipitation **IF**—Immunofluorescence **F**—Flow cytometry **E-P**—ELISA-Peptide
Species Cross-Reactivity Key: **H**—human **M**—mouse **R**—rat **Hm**—hamster **Mk**—monkey **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 **All**—all species expected Species enclosed in parentheses are predicted to react based on 100% homology.