



Rabbit Anti-ERO1L antibody

SL10551R

Product Name:	ERO1L
Chinese Name:	内质网氧化物蛋白Ero1-L α 抗体
Alias:	Endoplasmic oxidoreductin 1 like protein; Endoplasmic oxidoreductin-1-like protein; ERO1 alpha; ERO1 L; ERO1 Lalpha; ERO1 like protein alpha; ERO1-L; ERO1-L-alpha; ERO1-like (S. cerevisiae); ERO1-like protein alpha; ERO1A; ERO1A HUMAN; ERO1L; Oxidoreductin 1 Lalpha; Oxidoreductin-1-L-alpha.
Organism Species:	Rabbit
Clonality:	Polyclonal
React Species:	Human,Mouse,Rat,Rabbit,
Applications:	WB=1:500-2000ELISA=1:500-1000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Molecular weight:	52kDa
Cellular localization:	cytoplasmicThe cell membrane
Form:	Lyophilized or Liquid
Concentration:	1mg/ml
immunogen:	KLH conjugated synthetic peptide derived from human ERO1L:321-420/468
Lsotype:	IgG
Purification:	affinity purified by Protein A
Storage Buffer:	0.01M TBS(pH7.4) with 1% BSA, 0.03% Proclin300 and 50% Glycerol.
Storage:	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. The lyophilized antibody is stable at room temperature for at least one month and for greater than a year when kept at -20°C. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.
PubMed:	PubMed
Product Detail:	Ero1-La is an essential oxidoreductase that oxidizes proteins and is required for the folding of immunoglobulins. Ero-1La covalently binds with PDI (protein disulfide-isomerase) and together they produce disulfide bonds between proteins in the endoplasmic reticulum. Ero1-La and SIRT1 regulate adiponectin secretion from adipose tissue. Ero1-La and associated proteins also modulate PPAR γ (peroxisome

proliferator-activated receptor g) and SIRT1 activities. Ero1-La is stimulated by hypoxia, suggesting that it is regulated through the HIF (hypoxia inducible transcription factor) pathway. Ero1-La is ubiquitously expressed at low levels but expressed at high levels in upper digestive tract and esophagus. Ero1-La may function both as a monomer and a homodimer.

Function:

Essential oxidoreductase that oxidizes proteins in the endoplasmic reticulum to produce disulfide bonds. Acts by oxidizing directly P4HB/PDI isomerase through a direct disulfide exchange. Does not act as a direct oxidant of folding substrate, but relies on P4HB/PDI to transfer oxidizing equivalent. Associates with ERP44 but not with GRP54, demonstrating that it does not oxidize all PDI related proteins and can discriminate between PDI and related proteins. Its reoxidation probably involves electron transfer to molecular oxygen via FAD. Acts independently of glutathione. May be responsible for a significant proportion of reactive oxygen species (ROS) in the cell, thereby being a source of oxidative stress. Required for the folding of immunoglobulin proteins. Responsible for the release of the unfolded cholera toxin from reduced P4HB/PDI in case of infection by V.cholerae, thereby playing a role in retrotranslocation of the toxin.

Subunit:

Predominantly monomer. May function both as a monomer and a homodimer. Interacts with PDILT

Subcellular Location:

Endoplasmic reticulum membrane. The association with ERP44 is essential for its retention in the endoplasmic reticulum.

Tissue Specificity:

Widely expressed at low level. Expressed at high level in upper digestive tract. Highly expressed in esophagus. Weakly expressed in stomach and duodenum.

Post-translational modifications:

N-glycosylated.

The Cys-94/Cys-99 and Cys-394/Cys-397 disulfide bonds constitute the redox-active center.

The Cys-94/Cys-99 disulfide bond may accept electron from P4HB and funnel them to the active site disulfide Cys-394/Cys-397.

Similarity:

Belongs to the EROs family.

SWISS:

Q96HE7

Gene ID:

30001

Database links:

[Entrez Gene: 30001](#)Human

[Entrez Gene: 50527](#)Mouse

[Entrez Gene: 171562](#)Rat

[Omim: 615435](#)Human

[SwissProt: Q96HE7](#)Human

[SwissProt: Q8R180](#)Mouse

[SwissProt: Q8R4A1](#)Rat

[Unigene: 592304](#)Human

[Unigene: 387108](#)Mouse

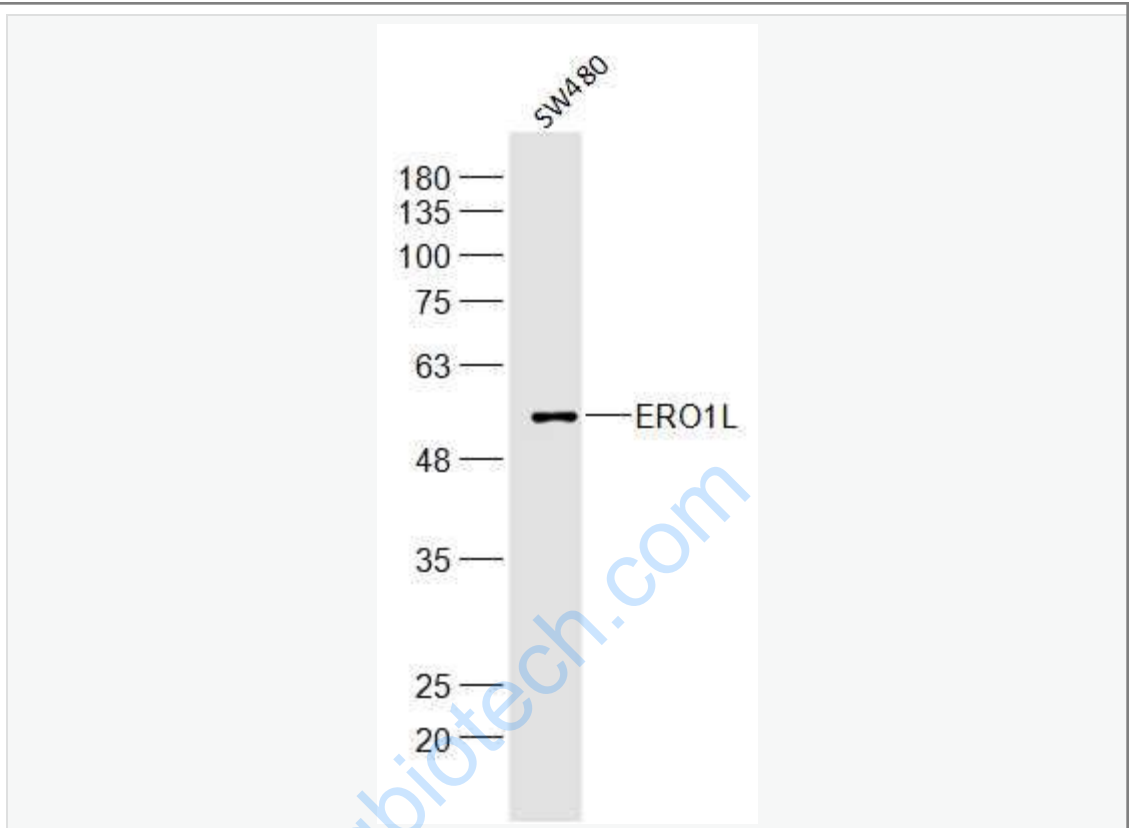
[Unigene: 64648](#)Rat

Important Note:

This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

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Picture:



Sample:

SW480(Human) Cell Lysate at 40 ug

Primary: Anti-ERO1L (SL10551R) at 1/300 dilution

Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution

Predicted band size: 52 kD

Observed band size: 52 kD