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Rabbit Anti-ERO1L antibody

SL10551R

Product Name	ERO1L
Chinese Name	内质网氧化物蛋白 Ero1-Lα 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.
Research Area	Tumour Cell biology Transporter
Immunogen Species	Rabbit
Clonality	Polyclonal
React Species	Human, (predicted: Mouse, Rat, Rabbit,)
Applications	WB=1:500-2000 not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Theoretical molecular weight	52kDa
Cellular localization	cytoplasmic The cell membrane
Form	Liquid
Concentration	1mg/ml
immunogen	KLH conjugated synthetic peptide derived from human ERO1L: 321-420/468
Lsotype	IgG
Purification	affinity purified by Protein A
Buffer Solution	1M TBS(pH7.4) with 1% BSA, 3% Proclin300 and 50% Glycerol.
Storage	Shipped at 4°C. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Attention	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
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 PPARg (peroxisome proliferator-activated receptor g) and SIRT1 activities. Ero1-La is stimulated by hypoxia, suggesting that it is regulated through the HIF (hypoxia inducible transcrip-tion 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

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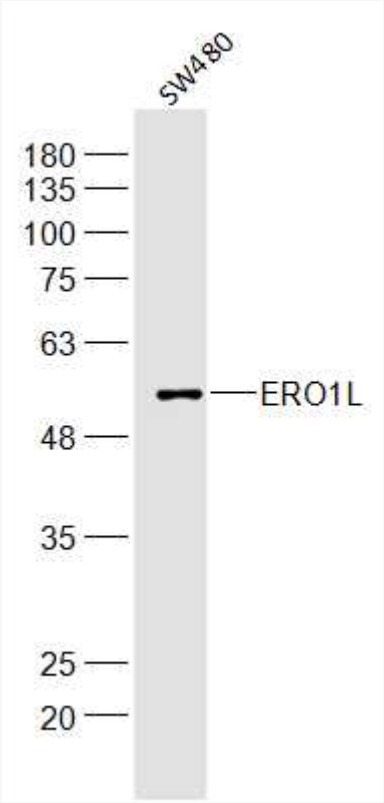
Product Picture



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