For Research Use Only

# ERO1L Monoclonal antibody

Catalog Number:67416-1-Ig Featured Product 3 Publications

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## Basic Information

Catalog Number:
67416-1-Ig

Size:
150ul , Concentration: 1000 ug/ml by Nanodrop;

Source:
Mouse

Isotype:
IgG2b

Immunogen Catalog Number:
AG29910

GenBank Accession Number:
BC008674

GeneID (NCBI):
30001

UNIPROT ID:
Q96HE7

Full Name:
ERO1-like (S. cerevisiae)

Calculated MW:
468 aa, 54 kDa

Observed MW:
60 kDa

Purification Method:
Protein A purification

CloneNo.:
1G12E11

Recommended Dilutions:
WB 1:5000-1:50000
IHC 1:500-1:2000
IF-P 1:200-1:800
IF/ICC 1:200-1:800

## Applications

Tested Applications:
WB, IHC, IF/ICC, IF-P, ELISA

Cited Applications:
WB

Species Specificity:
Human, Mouse, Rat

Cited Species:
mouse

***Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0***

Positive Controls:

WB : HeLa cells, HepG2 cells, HEK-293 cells, Jurkat cells, HSC-T6 cells, NIH/3T3 cells, 4T1 cells

IHC : human pancreas cancer tissue, human stomach cancer tissue

IF-P : human stomach cancer tissue,

IF/ICC : HEK-293 cells, human stomach cancer tissue

## Background Information

ERO1L, also named as ERO1-alpha, is an essential oxidoreductase that oxidizes proteins in the endoplasmic reticulum to produce disulfide bonds. It acts by oxidizing directly P4HB/PDI isomerase through a direct disulfide exchange. It 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. Glutathione may be required to regulate its activity in the endoplasmic reticulum. It may be responsible for a significant proportion of reactive oxygen species (ROS) in the cell, thereby being a source of oxidative stress. It is 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. ERO1L has a calculated molecular weight of 54 kDa and can be detected as 60kDa.

## Notable Publications

| Author | Pubmed ID | Journal | Application |
|---|---|---|---|
| Siwen Xie | 39643796 | Biol Trace Elem Res | WB |
| Guangjie Liu | 39566653 | Nitric Oxide | WB |
| Qian Guo | 37153733 | Theranostics | WB |

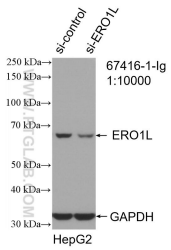
## Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

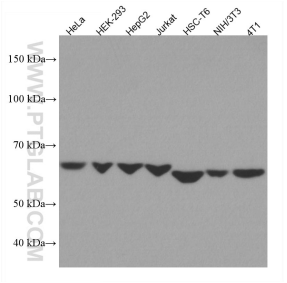
*** 20ul sizes contain 0.1% BSA

For technical support and original validation data for this product please contact:
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)
E: proteintech@ptglab.com
W: ptglab.com

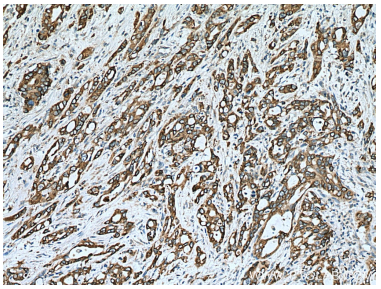
## Selected Validation Data



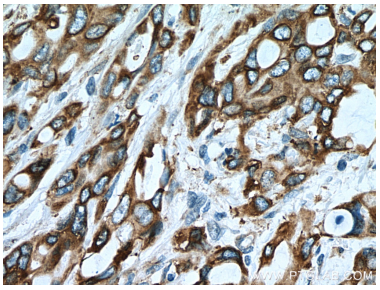

WB result of ERO1L antibody (67416-1-Ig; 1:10000; incubated at room temperature for 1.5 hours) with sh-Control and sh-ERO1L transfected HepG2 cells.



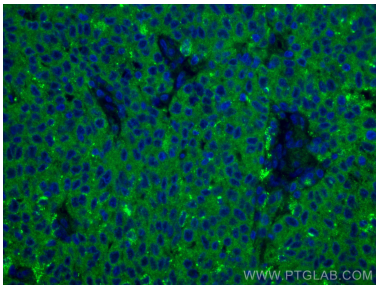

Various lysates were subjected to SDS PAGE followed by western blot with 67416-1-Ig (ERO1L antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



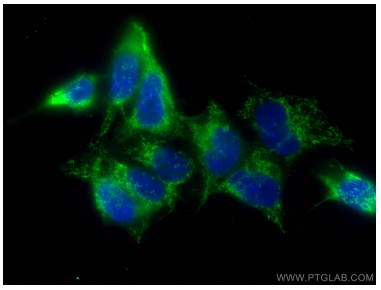
Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 67416-1-Ig (ERO1L antibody) at dilution of 1:1000 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 67416-1-Ig (ERO1L antibody) at dilution of 1:1000 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).




Immunofluorescent analysis of (4% PFA) fixed human stomach cancer tissue using ERO1L antibody (67416-1-Ig, Clone: 1G12E11 ) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).




Immunofluorescent analysis of (4% PFA) fixed HEK-293 cells using ERO1L antibody (67416-1-Ig, Clone: 1G12E11 ) at dilution of 1:400 and CoraLite®488-Conjugated Goat Anti-Mouse IgG(H+L).