

# ERO1L Polyclonal antibody

Catalog Number: 12007-1-AP

8 Publications

## Basic Information

<b>Catalog Number:</b> 12007-1-AP	<b>GenBank Accession Number:</b> BC008674	<b>Purification Method:</b> Antigen affinity purification
<b>Size:</b> 150ul , Concentration: 900 µg/ml by Nanodrop and 420 µg/ml by Bradford method using BSA as the standard;	<b>GeneID (NCBI):</b> 30001	<b>Recommended Dilutions:</b> WB 1:200-1:1000 IHC 1:50-1:500
<b>Source:</b> Rabbit	<b>Full Name:</b> ERO1-like (S. cerevisiae)	
<b>Isotype:</b> IgG	<b>Calculated MW:</b> 468 aa, 54 kDa	
<b>Immunogen Catalog Number:</b> AG2620	<b>Observed MW:</b> 54 kDa	

## Applications

<b>Tested Applications:</b> FC, IHC, WB, ELISA	<b>Positive Controls:</b>
<b>Cited Applications:</b> IF, WB	<b>WB :</b> mouse ovary tissue, A431 cells
<b>Species Specificity:</b> human, mouse, rat	<b>IHC :</b> human pancreas cancer tissue,
<b>Cited Species:</b> human, rat, mouse, pig	

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

## 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. This antibody has no cross reaction to ERO1.

## Notable Publications

Author	Pubmed ID	Journal	Application
Yu Chen	34592660	Cell Calcium	WB
Nan Zhang	36220374	Brain Res	WB, IF
Renjie Sun	34287039	J Virol	WB

## Storage

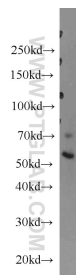
**Storage:**  
Store at -20°C. Stable for one year after shipment.  
**Storage Buffer:**  
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.  
**Aliquoting is unnecessary for -20°C storage**

\*\*\* 20ul sizes contain 0.1% BSA

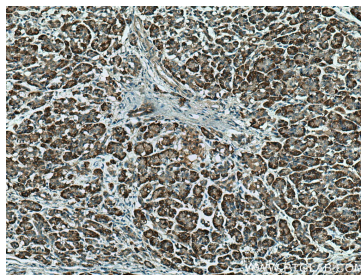
For technical support and original validation data for this product please contact:  
T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)  
E: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)  
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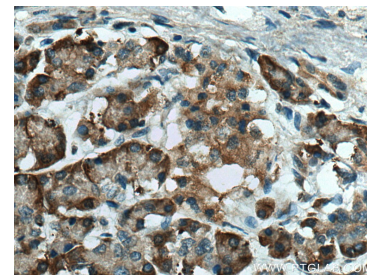
## Selected Validation Data



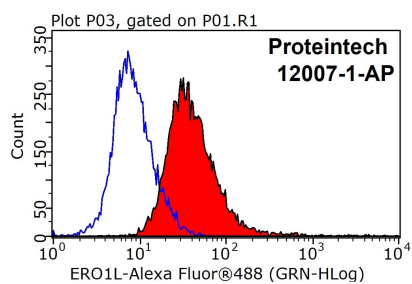
mouse ovary tissue were subjected to SDS PAGE followed by western blot with 12007-1-AP (ERO1L antibody) at dilution of 1:100 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human pancreas cancer tissue slide using 12007-1-AP (ERO1L antibody) at dilution of 1:200 (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 12007-1-AP (ERO1L antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



1X10<sup>6</sup> HeLa cells were stained with 0.2ug ERO1L antibody (12007-1-AP, red) and control antibody (blue). Fixed with 90% MeOH blocked with 3% BSA (30 min). Alexa Fluor 488-conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) with dilution 1:1000.