For Research Use Only

ERO1L Polyclonal antibody

Catalog Number:12007-1-AP 10 Publications

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Basic Information

Catalog Number:
12007-1-AP

Size:
150ul , Concentration: 900 ug/ml by Nanodrop and 420 ug/ml by Bradford method using BSA as the standard;

Source:
Rabbit

Isotype:
IgG

Immunogen Catalog Number:
AG2620

GenBank Accession Number:
BC008674

GeneID (NCBI):
30001

UNIPROT ID:
Q96HE7

Full Name:
ERO1-like (S. cerevisiae)

Calculated MW:
468 aa, 54 kDa

Observed MW:
54 kDa

Purification Method:
Antigen affinity purification

Recommended Dilutions:
WB 1:200-1:1000
IHC 1:50-1:500

Applications

Tested Applications:
WB, IHC, ELISA

Cited Applications:
WB, IHC, IF

Species Specificity:
human, mouse, rat

Cited Species:
human, mouse, rat, pig

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 : mouse ovary tissue, A431 cells

IHC : human pancreas 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. 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

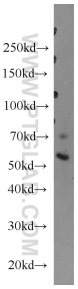
Storage

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

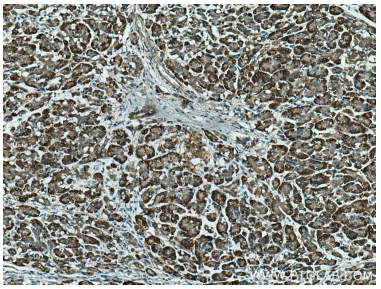
*** 20ul sizes contain 0.1% BSA

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
W: ptglab.com

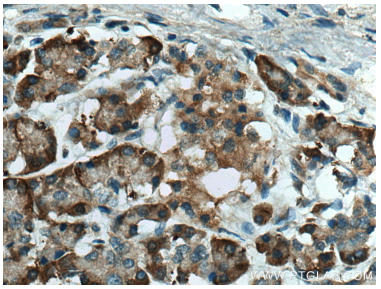
Selected Validation Data



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).