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ERO1L Antibody (C-term)

Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13305b

Product Information

Application	WB, IHC-P, E
Primary Accession	Q96HE7
Other Accession	NP_055399.1
Reactivity	Human
Predicted	Mouse, Rat, Bovine, Canine, Rabbit
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Clone Names	RB33290
Calculated MW	54393
Antigen Region	350-379

Additional Information

Gene ID	30001
Other Names	ERO1-like protein alpha, ERO1-L, ERO1-L-alpha, 184-, Endoplasmic oxidoreductin-1-like protein, Oxidoreductin-1-L-alpha, ERO1L
Target/Specificity	This ERO1L antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 350-379 amino acids from the C-terminal region of human ERO1L.
Dilution	WB~~1:1000 IHC-P~~1:100~500 E~~Use at an assay dependent concentration.
Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.
Storage	Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	ERO1L Antibody (C-term) is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ERO1A (HGNC:13280)
Synonyms	ERO1L

Function	Oxidoreductase involved in disulfide bond formation in the endoplasmic reticulum. Efficiently reoxidizes P4HB/PDI, the enzyme catalyzing protein disulfide formation, in order to allow P4HB to sustain additional rounds of disulfide formation. Following P4HB reoxidation, passes its electrons to molecular oxygen via FAD, leading to the production of reactive oxygen species (ROS) in the cell. Required for the proper folding of immunoglobulins (PubMed:29858230). Plays an important role in ER stress-induced, CHOP-dependent apoptosis by activating the inositol 1,4,5-trisphosphate receptor IP3R1. Involved in 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.
Cellular Location	Endoplasmic reticulum membrane; Peripheral membrane protein; Lumenal side. Golgi apparatus lumen. Secreted. Cell projection, dendrite {ECO:0000250|UniProtKB:Q8R4A1}. Note=The association with ERP44 is essential for its retention in the endoplasmic reticulum (PubMed:29858230). In neurons, it localizes to dendrites (By similarity). {ECO:0000250|UniProtKB:Q8R4A1, ECO:0000269|PubMed:29858230}
Tissue Location	Widely expressed at low level. Expressed at high level in upper digestive tract. Highly expressed in esophagus. Weakly expressed in stomach and duodenum.

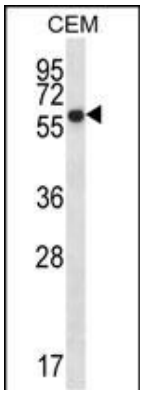
Background

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.

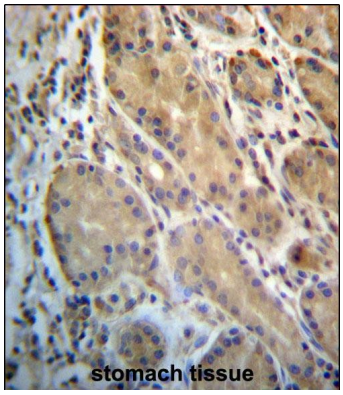
References

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Images



ERO1L Antibody (C-term) (Cat. #AP13305b) western blot analysis in CEM cell line lysates (35ug/lane).This demonstrates the ERO1L antibody detected the ERO1L protein (arrow).



ERO1L Antibody (C-term) (Cat. #AP13305b)immunohistochemistry analysis in formalin fixed and paraffin embedded human stomach tissue followed by peroxidase conjugation of the secondary antibody and DAB staining.This data demonstrates the use of ERO1L Antibody (C-term) for immunohistochemistry. Clinical relevance has not been evaluated.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.