

ERO1L Antibody (C-term) Blocking peptide
Synthetic peptide
Catalog # BP13305b**Specification**

ERO1L Antibody (C-term) Blocking peptide - Product InformationPrimary Accession [Q96HE7](#)**ERO1L Antibody (C-term) Blocking peptide - 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

The synthetic peptide sequence used to generate the antibody AP13305b was selected from the C-term region of ERO1L. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format

Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage

Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions

This product is for research use only. Not for use in diagnostic or therapeutic procedures.

ERO1L Antibody (C-term) Blocking peptide - Protein InformationName 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; Luminal 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.

ERO1L Antibody (C-term) Blocking peptide - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Blocking Peptides](#)

ERO1L Antibody (C-term) Blocking peptide - Images**ERO1L Antibody (C-term) Blocking peptide - 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.

ERO1L Antibody (C-term) Blocking peptide - References

Inaba, K., et al. EMBO J. 29(19):3330-3343(2010)Appenzeller-Herzog, C., et al. EMBO J. 29(19):3318-3329(2010)Swiatkowska, M., et al. J. Biol. Chem. 285(39):29874-29883(2010)Chambers, J.E., et al. J. Biol. Chem. 285(38):29200-29207(2010)Rose, J.E., et al. Mol. Med. 16 (7-8), 247-253 (2010) :