

Ero1-L α (YW-8): sc-100805

BACKGROUND

Ero1-L α (endoplasmic oxidoreductin-1-like), also known as Ero1 α or oxidoreductin-1-L α , is an essential oxidoreductase that oxidizes proteins and is required for the folding of immunoglobulins. Ero1-L α covalently binds with PDI (protein disulfide-isomerase) and together they produce disulfide bonds between proteins in the endoplasmic reticulum. Ero1-L α and SIRT1 regulate adiponectin secretion from adipose tissue. Ero1-L α and associated proteins also modulate PPAR γ (peroxisome proliferator-activated receptor γ) and SIRT1 activities. Ero1-L α is stimulated by hypoxia, suggesting that it is regulated through the HIF (hypoxia inducible transcription factor) pathway. Ero1-L α is ubiquitously expressed at low levels but expressed at high levels in upper digestive tract and esophagus. Ero1-L α may function both as a monomer and a homodimer.

CHROMOSOMAL LOCATION

Genetic locus: ERO1A (human) mapping to 14q22.1; Ero1I (mouse) mapping to 14 C1.

SOURCE

Ero1-L α (YW-8) is a mouse monoclonal antibody raised against recombinant Ero1-L α of human origin.

PRODUCT

Each vial contains 100 μ g IgG $_{2b}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

Store at 4° C, ****DO NOT FREEZE****. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

PROTOCOLS

See our web site at www.scbt.com for detailed protocols and support products.

APPLICATIONS

Ero1-L α (YW-8) is recommended for detection of Ero1-L α of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Ero1-L α siRNA (h): sc-77284, Ero1-L α siRNA (m): sc-77285, Ero1-L α shRNA Plasmid (h): sc-77284-SH, Ero1-L α shRNA Plasmid (m): sc-77285-SH, Ero1-L α shRNA (h) Lentiviral Particles: sc-77284-V and Ero1-L α shRNA (m) Lentiviral Particles: sc-77285-V.

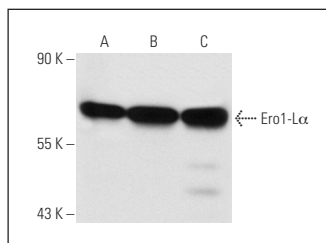
Molecular Weight of Ero1-L α : 54 kDa.

Positive Controls: OV-90 whole cell lysate: sc-364191, HeLa whole cell lysate: sc-2200 or ES-2 cell lysate: sc-24674.

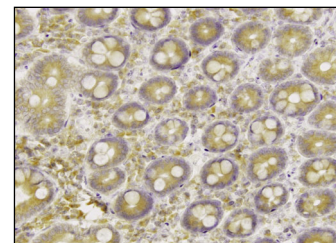
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG κ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



Ero1-L α (YW-8): sc-100805. Western blot analysis of Ero1-L α expression in HeLa (A), OV-90 (B), and ES-2 (C) whole cell lysates.



Ero1-L α (YW-8): sc-100805. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human small intestine tissue showing cytoplasmic localization.

SELECT PRODUCT CITATIONS

- Yeh, T.Y., et al. 2009. Hypermetabolism, hyperphagia, and reduced adiposity in tankyrase-deficient mice. *Diabetes* 58: 2476-2485.
- Zheng, X.Y., et al. 2015. Attenuation of oxygen fluctuation-induced endoplasmic reticulum stress in human lens epithelial cells. *Exp. Ther. Med.* 10: 1883-1887.
- Chen, X., et al. 2016. FBXO6-mediated ubiquitination and degradation of Ero1L inhibits endoplasmic reticulum stress-induced apoptosis. *Cell. Physiol. Biochem.* 39: 2501-2508.
- Yao, W., et al. 2017. Tang-Luo-Ning, a traditional chinese medicine, inhibits endoplasmic reticulum stress-induced apoptosis of schwann cells under high glucose environment. *Evid. Based Complement. Alternat. Med.* 2017: 5193548.
- Elliott, B., et al. 2019. Essential role of JunD in cell proliferation is mediated via MYC signaling in prostate cancer cells. *Cancer Lett.* 448: 155-167.
- Chaudhary, P., et al. 2021. Elucidation of ER stress and UPR pathway in sialic acid-deficient cells: pathological relevance to GNEM. *J. Cell. Biochem.* 122: 1886-1902.
- Herrema, H., et al. 2022. FKBP11 rewires UPR signaling to promote glucose homeostasis in type 2 diabetes and obesity. *Cell Metab.* 34: 1004-1022.e8.

RESEARCH USE

For research use only, not for use in diagnostic procedures.