SANTA CRUZ BIOTECHNOLOGY, INC.

Ero1-Lα (YW-8): sc-100805

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ero1-Lα (endoplasmic oxidoreductin-1-like), also known as Ero1α or oxidoreductin-1-Lα, is an essential oxidoreductase that oxidizes proteins and is required for the folding of immunoglobulins. Ero1-Lα covalently binds with PDI (protein disulfide-isomerase) and together they produce disulfide bonds between proteins in the endoplasmic reticulum. Ero1-Lα and SIRT1 regulate adiponectin secretion from adipose tissue. Ero1-Lα and associated proteins also modulate PPARγ (peroxisome proliferator- activated receptor γ) and SIRT1 activities. Ero1-Lα is stimulated by hypoxia, suggesting that it is regulated through the HIF (hypoxia inducible transcription factor) pathway. Ero1-Lα is ubiquitously expressed at low levels but expressed at high levels in upper digestive tract and esophagus. Ero1-Lα may function both as a monomer and a homodimer.

CHROMOSOMAL LOCATION

Genetic locus: ERO1A (human) mapping to 14q22.1; Ero1l (mouse) mapping to 14 C1.

SOURCE

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

PRODUCT

Each vial contains 100 µg 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-Lα (YW-8) is recommended for detection of Ero1-Lα of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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-Lα siRNA (h): sc-77284, Ero1-Lα siRNA (m): sc-77285, Ero1-Lα shRNA Plasmid (h): sc-77284-SH, Ero1-Lα shRNA Plasmid (m): sc-77285-SH, Ero1-Lα shRNA (h) Lentiviral Particles: sc-77284-V and Ero1-Lα shRNA (m) Lentiviral Particles: sc-77285-V.

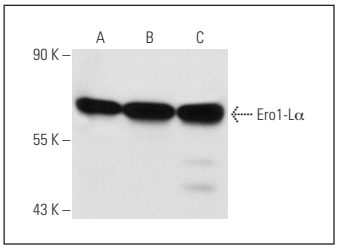
Molecular Weight of Ero1-Lα: 54 kDa.

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

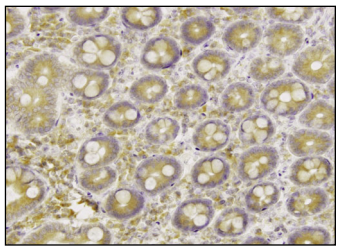
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ 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-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



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



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

SELECT PRODUCT CITATIONS

1. Yeh, T.Y., et al. 2009. Hypermetabolism, hyperphagia, and reduced adiposity in tankyrase-deficient mice. Diabetes 58: 2476-2485.
2. Liu, B., et al. 2012. Proteomic identification of common SCF ubiquitin ligase FBXO6-interacting glycoproteins in three kinds of cells. J. Proteome Res. 11: 1773-1781.
3. 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.
4. Chen, X., et al. 2016. FBXO6-mediated ubiquitination and degradation of Ero1L inhibits endoplasmic reticulum stress-induced apoptosis. Cell. Physiol. Biochem. 39: 2501-2508.
5. 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.
6. 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.
7. Chaudhary, P., et al. 2021. Elucidation of ER stress and UPR pathway in sialic acid-deficient cells: pathological relevance to GNEM. J. Cell. Biochem. E-published.

RESEARCH USE

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