SANTA CRUZ BIOTECHNOLOGY, INC.

ERp46 (H-80): sc-134829

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Endoplasmic reticulum proteins (ERps) are widely expressed proteins and localize to the ER. ERp19, ERp29, ERp46, ERp57 and ERp72 may act as proteases, protein disulfide isomerases, thiol-disulfide oxidases, phospholipases or a combination of these. ERp19, also designated thioredoxin domain-containing protein 12 (TXNDC12), and ERp46, also designated thioredoxin domain containing 5 (TXNDC5), belong to the thioredoxin superfamily and contain a thioredoxin fold with a consensus active-site sequence (CxxC). Both ERp19 and ERp46 are widely expressed ER luminal proteins that are most abundant in the liver and are enriched in purified liver ER vesicles. ERp46 reduces Insulin disulfide bonds and also complements protein disulfide-isomerase deficiency in yeast. ERp46 may protect hypoxic cells from apoptosis, as its expression is induced by hypoxia.

REFERENCES

1. Alanen, H.I., et al. 2003. Functional characterization of ERp18, a new endoplasmic reticulum-located thioredoxin superfamily member. J. Biol. Chem. 278: 28912-28920.
2. Sullivan, D.C., et al. 2003. EndoPDI, a novel protein-disulfide isomerase-like protein that is preferentially expressed in endothelial cells acts as a stress survival factor. J. Biol. Chem. 278: 47079-47088.

CHROMOSOMAL LOCATION

Genetic locus: TXNDC5 (human) mapping to 6p24.3; Txndc5 (mouse) mapping to 13 A3.3.

SOURCE

ERp46 (H-80) is a rabbit polyclonal antibody raised against amino acids 137-216 mapping within an internal region of ERp46 of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

APPLICATIONS

ERp46 (H-80) is recommended for detection of ERp46 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

ERp46 (H-80) is also recommended for detection of ERp46 in additional species, including equine, canine and bovine.

Suitable for use as control antibody for ERp46 siRNA (h): sc-60601, ERp46 siRNA (m): sc-60602, ERp46 shRNA Plasmid (h): sc-60601-SH, ERp46 shRNA Plasmid (m): sc-60602-SH, ERp46 shRNA (h) Lentiviral Particles: sc-60601-V and ERp46 shRNA (m) Lentiviral Particles: sc-60602-V.

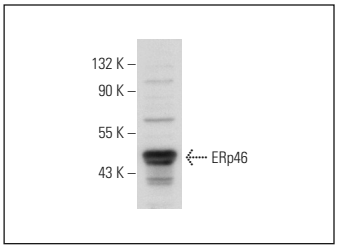
Molecular Weight of ERp46: 49 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

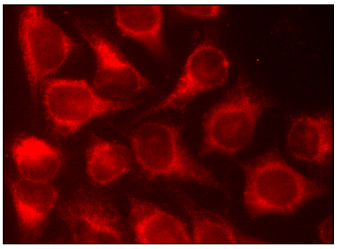
RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ERp46 (H-80): sc-134829. Western blot analysis of ERp46 expression in HeLa whole cell lysate.



ERp46 (H-80): sc-134829. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

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