

ERp29 (N-14): sc-49658

BACKGROUND

Endoplasmic reticulum proteins (ERPs) are widely expressed proteins that 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. ERp29, also designated chromosome 12 open reading frame 8 (C12ORF8), is a reticuloplasmin that dimerizes and may function in secretory protein processing within the ER. ERp29 also plays a possible role in the folding of proteins in the ER. Though this protein shows sequence similarity to the protein disulfide isomerase family, it does not function as a disulfide isomerase, as it lacks the thioredoxin motif characteristic of this family. Like other reticuloplasmins, ERp29 contains an N-terminal hydrophobic signal sequence and a C-terminal endoplasmic reticulum retention motif (KEEL).

REFERENCES

- Bo, Z., et al. 2005. Identification of differentially expressed proteins of gamma-ray irradiated rat intestinal epithelial IEC-6 cells by two-dimensional gel electrophoresis and matrix-assisted laser desorption/ionisation-time of flight mass spectrometry. *Proteomics* 5: 426-432.
- Chandra, H., et al. 2005. Proteome analysis of mouse macrophages treated with anthrax lethal toxin. *Biochim. Biophys. Acta* 1747: 151-159.
- Morand, J.P., et al. 2005. Proteomic profiling of hepatic endoplasmic reticulum-associated proteins in an animal model of Insulin resistance and metabolic dyslipidemia. *J. Biol. Chem.* 280: 17626-17633.
- Park, S., et al. 2005. Overexpression of ERp29 in the thyrocytes of FRTL-5 cells. *Mol. Biol. Rep.* 32: 7-13.
- Willis, D., et al. 2005. Differential transport and local translation of cytoskeletal, injury-response, and neurodegeneration protein mRNAs in axons. *J. Neurosci.* 25: 778-791.

CHROMOSOMAL LOCATION

Genetic locus: ERp28 (human) mapping to 12q24.13; Erp29 (mouse) mapping to 5 F.

SOURCE

ERp29 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of ERp29 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.

Blocking peptide available for competition studies, sc-49658 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

ERp29 (N-14) is recommended for detection of ERp29 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).

ERp29 (N-14) is also recommended for detection of ERp29 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ERp29 siRNA (h): sc-60599, ERp29 siRNA (m): sc-60600, ERp29 shRNA Plasmid (h): sc-60599-SH, ERp29 shRNA Plasmid (m): sc-60600-SH, ERp29 shRNA (h) Lentiviral Particles: sc-60599-V and ERp29 shRNA (m) Lentiviral Particles: sc-60600-V.

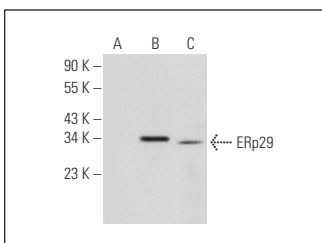
Molecular Weight of ERp29: 29 kDa.

Positive Controls: human liver extract: sc-363766 or ERp29 (m): 293T Lysate: sc-120110.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



ERp29 (N-14): sc-49658. Western blot analysis of ERp29 expression in non-transfected: sc-117752 (A) and mouse ERp29 transfected: sc-120110 (B) 293T whole cell lysates and human liver tissue extract (C).

PROTOCOLS

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