SANTA CRUZ BIOTECHNOLOGY, INC.

ERp29 (C-14): sc-49656

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The Power to Question

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

1. 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.
2. Chandra, H., et al. 2005. Proteome analysis of mouse macrophages treated with anthrax lethal toxin. Biochim. Biophys. Acta 1747: 151-159.
3. 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.
4. Park, S., et al. 2005. Overexpression of ERp29 in the thyrocytes of FRTL-5 cells. Mol. Biol. Rep. 32: 7-13.
5. 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 (C-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-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-49656 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 (C-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), 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 (C-14) is also recommended for detection of ERp29 in additional species, including equine, canine, bovine and porcine.

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.

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) 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.

PROTOCOLS

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