

ERp5 (H-249): sc-292227

BACKGROUND

Endoplasmic reticulum proteins (ERps) are widely expressed proteins that localize to the ER and may act as proteases, protein disulfide isomerases, thiol-disulfide oxidases or phospholipases. ERp5, also known as PDIA6 (protein disulfide isomerase family A, member 6) or TXNDC7, is a 440 amino acid protein that contains two thioredoxin domains and belongs to the protein disulfide isomerase family. Localized to the melanosome, as well as to the lumen of the ER, ERp5 functions to catalyze the rear-rangement of disulfide bonds in a variety of different proteins. Via its catalytic activity, ERp5 is able to reduce the disulfide bond that binds MICA to tumor cells, thereby releasing MICA and reducing the rate of tumor expansion. Multiple isoforms of ERp5 exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: PDIA6 (human) mapping to 2p25.1; Pdia6 (mouse) mapping to 12 A1.1.

SOURCE

ERp5 (H-249) is a rabbit polyclonal antibody raised against amino acids 192-440 mapping at the C-terminus of ERp5 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

ERp5 (H-249) is recommended for detection of ERp5 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); non cross-reactive with other ERp family members.

ERp5 (H-249) is also recommended for detection of ERp5 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for ERp5 siRNA (h): sc-94493, ERp5 siRNA (m): sc-144938, ERp5 shRNA Plasmid (h): sc-94493-SH, ERp5 shRNA Plasmid (m): sc-144938-SH, ERp5 shRNA (h) Lentiviral Particles: sc-94493-V and ERp5 shRNA (m) Lentiviral Particles: sc-144938-V.

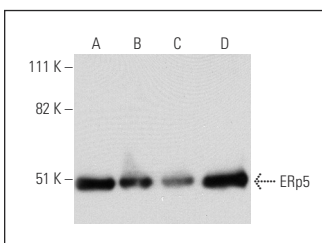
Molecular Weight of ERp5: 48 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, MCF7 whole cell lysate: sc-2206 or A2058 whole cell lysate: sc-364178.

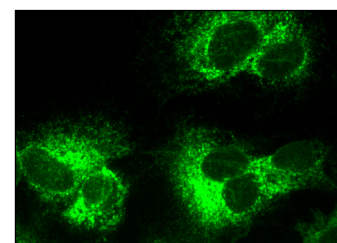
RECOMMENDED SECONDARY REAGENTS

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



ERp5 (H-249): sc-292227. Western blot analysis of ERp5 expression in K-562 (A), Daudi (B), HT-1080 (C) and Y79 (D) whole cell lysates.



ERp5 (H-249): sc-292227. Immunofluorescence staining of formalin-fixed Hep G2 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.