SANTA CRUZ BIOTECHNOLOGY, INC.

TXNDC4 (K-19): sc-160887

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

TXNDC4 (thioredoxin domain containing 4), also known as ERP44, is a 406 amino acid protein that contains one thioredoxin domain, a motif that participates in various redox reactions throughout the cell. Localized to the lumen of the endoplasmic reticulum (ER), TXNDC4 functions to inhibit the activity of IP3R-I (inositol 1,4,5-triphosphate receptor,type 1) within calcium channels. In addition, TXNDC4 is thought to regulate oxidative protein folding within the ER and may be involved in retaining proteins, such as Ero1-Lβ and Ero1-Lα, in the ER. TXNDC4 expression is induced by ER stress, further suggesting an important role for TXNDC4 in the maintenance of intraluminal conditions. TXNDC4 contains an N-terminal ER targeting sequence, as well as a C-terminal ER retention signal (RDEL), both of which keep TXNDC4 within the ER.

CHROMOSOMAL LOCATION

Genetic locus: ERP44 (human) mapping to 9q31.1; Erp44 (mouse) mapping to 4 B1.

SOURCE

TXNDC4 (K-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TXNDC4 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-160887 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.

APPLICATIONS

TXNDC4 (K-19) is recommended for detection of TXNDC4 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 TXNDC family members.

TXNDC4 (K-19) is also recommended for detection of TXNDC4 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TXNDC4 siRNA (h): sc-92957, TXNDC4 siRNA (m): sc-154823, TXNDC4 shRNA Plasmid (h): sc-92957-SH, TXNDC4 shRNA Plasmid (m): sc-154823-SH, TXNDC4 shRNA (h) Lentiviral Particles: sc-92957-V and TXNDC4 shRNA (m) Lentiviral Particles: sc-154823-V.

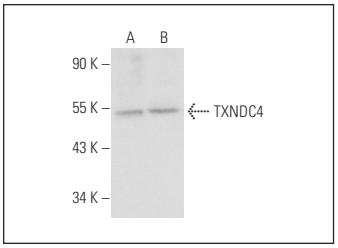
Molecular Weight of TXNDC4: 44 kDa.

Positive Controls: K-562 whole cell lysate: sc-2203, HeLa whole cell lysate: sc-2200 or MCF7 whole cell lysate: sc-2206.

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



TXNDC4 (K-19): sc-160887. Western blot analysis of TXNDC4 expression in HeLa (**A**) and MCF7 (**B**) whole cell lysates.

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.

MONOS Satisfaction Guaranteed

Try **TXNDC4 (E-6): sc-393687** or **TXNDC4 (H-11): sc-515435**, our highly recommended monoclonal alternatives to TXNDC4 (K-19).