

RNF23 (S-19): sc-68781

BACKGROUND

The RING-type zinc finger motif is present in a number of viral and eukaryotic proteins and is made of a conserved cysteine-rich domain that is able to bind two zinc atoms. Proteins that contain this conserved domain are generally involved in the ubiquitination pathway of protein degradation. RNF23 (RING finger protein 23), also known as tripartite motif-containing protein 39 (TRIM39) or testis-abundant finger protein, is a 518 amino acid protein belonging to the TRIM/RBCC family that is known to interact with MOAP1. Ubiquitously expressed and existing as two alternatively spliced isoforms, RNF23 is found at highest levels in spleen, testis, brain, kidney, liver, heart and skeletal muscle. RNF23 typically localizes to cytosol but shifts to mitochondria upon co-localization with MOAP1, a short-lived, pro-apoptotic protein which RNF23 prevents from becoming poly-ubiquitinated and degraded, thereby facilitating apoptosis. RNF23 contains one B box-type zinc finger, a B30.2/SPRY domain and a single RING-type zinc finger.

REFERENCES

- Orimo, A., et al. 2000. Molecular cloning of testis-abundant finger Protein/Ring finger protein 23 (RNF23), a novel RING-B box-coiled coil-B30.2 protein on the class I region of the human MHC. *Biochem. Biophys. Res. Commun.* 276: 45-51.
- Reymond, A., et al. 2001. The tripartite motif family identifies cell compartments. *EMBO J.* 20: 2140-2151.
- Meroni, G., et al. 2005. TRIM/RBCC, a novel class of "single protein RING finger" E3 ubiquitin ligases. *Bioessays* 27: 1147-1157.
- Roberts, J.D., et al. 2007. cGMP-dependent protein kinase I interacts with TRIM39R, a novel Rpp21 domain-containing TRIM protein. *Am. J. Physiol. Lung Cell. Mol. Physiol.* 293: L903-L912.
- Fu, N.Y., et al. 2007. Inhibition of ubiquitin-mediated degradation of MOAP-1 by apoptotic stimuli promotes Bax function in mitochondria. *Proc. Natl. Acad. Sci. USA* 104: 10051-10056.
- Lee, S.S., et al. 2009. TRIM39 is a MOAP-1-binding protein that stabilizes MOAP-1 through inhibition of its poly-ubiquitination process. *Exp. Cell Res.* 315: 1313-1325.

CHROMOSOMAL LOCATION

Genetic locus: TRIM39 (human) mapping to 6p21.1; Trim39 (mouse) mapping to 17 B1.

SOURCE

RNF23 (S-19) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of RNF23 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-68781 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

RNF23 (S-19) is recommended for detection of RNF23 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).

RNF23 (S-19) is also recommended for detection of RNF23 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for RNF23 siRNA (h): sc-76420, RNF23 siRNA (m): sc-155964, RNF23 shRNA Plasmid (h): sc-76420-SH, RNF23 shRNA Plasmid (m): sc-155964-SH, RNF23 shRNA (h) Lentiviral Particles: sc-76420-V and RNF23 shRNA (m) Lentiviral Particles: sc-155964-V.

Molecular Weight of RNF23 isoforms: 60/65 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.

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.