

TRIM31 (I-14): sc-79779

BACKGROUND

The tripartite motif (TRIM) family of proteins are characterized by a conserved TRIM domain that includes a coiled-coil region, a B-box type zinc finger, one RING finger and three zinc-binding domains. TRIM31 (tripartite motif-containing 31), also known as RNF, HCG1 or HCGI, is a 425 amino acid cytoplasmic protein that localizes to the mitochondria. Belonging to the TRIM/RBCC family, TRIM31 contains a variety of domains that are characteristic to TRIM proteins, including a RING-type zinc finger and a B box-type zinc finger. TRIM36 is upregulated in gastric adenocarcinomas and may participate in protein modification or ubiquitination. TRIM31 is a regulator of Src-induced anchorage independent cell growth and is suggested to have E3 ubiquitin-protein ligase activity. TRIM31 exists as two alternatively spliced isoforms, designated isoform A and isoform B.

REFERENCES

1. Reymond, A., Meroni, G., Fantozzi, A., Merla, G., Cairo, S., Luzi, L., Riganelli, D., Zanaria, E., Messali, S., Cainarca, S., Guffanti, A., Minucci, S., Pelicci, P.G. and Ballabio, A. 2001. The tripartite motif family identifies cell compartments. *EMBO J.* 20: 2140-2151.
2. Ohkawa, N., Kokura, K., Matsu-Ura, T., Obinata, T., Konishi, Y. and Tamura, T.A. 2001. Molecular cloning and characterization of neural activity-related RING finger protein (NARF): a new member of the RBCC family is a candidate for the partner of myosin V. *J. Neurochem.* 78: 75-87.
3. Dokmanovic, M., Chang, B.D., Fang, J. and Roninson, I.B. 2002. Retinoid-induced growth arrest of breast carcinoma cells involves co-activation of multiple growth-inhibitory genes. *Cancer Biol. Ther.* 1: 24-27.
4. Meroni, G., Diez-Roux, G. 2005. TRIM/RBCC, a novel class of "single protein RING finger" E3 ubiquitin ligases. *Bioessays* 27: 1147-1157.
5. Sardiello, M., Cairo, S., Fontanella, B., Ballabio, A. and Meroni, G. 2008. Genomic analysis of the TRIM family reveals two groups of genes with distinct evolutionary properties. *BMC Evol. Biol.* 8: 225.
6. Sugiura, T., Miyamoto, K. 2008. Characterization of TRIM31, upregulated in gastric adenocarcinoma, as a novel RBCC protein. *J. Cell. Biochem.* 105: 1081-1091.
7. Bowie, A.G. 2008. TRIM-ing down tolls. *Nat. Immunol.* 9: 348-350.

CHROMOSOMAL LOCATION

Genetic locus: TRIM31 (human) mapping to 6p21.33.

SOURCE

TRIM31 (I-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of TRIM31 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-79779 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

TRIM31 (I-14) is recommended for detection of TRIM31 of 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).

Suitable for use as control antibody for TRIM31 siRNA (h): sc-76746, TRIM31 shRNA Plasmid (h): sc-76746-SH and TRIM31 shRNA (h) Lentiviral Particles: sc-76746-V.

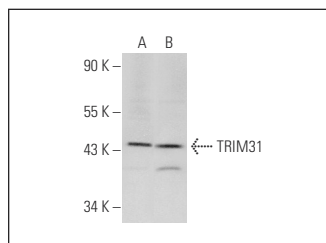
Molecular Weight of TRIM31: 48 kDa.

Positive Controls: A549 cell lysate: sc-2413, HeLa whole cell lysate: sc-2200 or Hep G2 cell lysate: sc-2227.

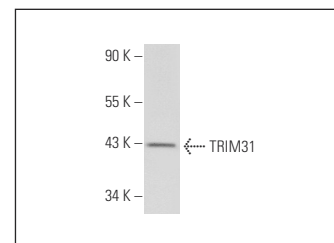
RECOMMENDED SECONDARY REAGENTS

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



TRIM31 (I-14): sc-79779. Western blot analysis of TRIM31 expression in HeLa (A) and Hep G2 (B) whole cell lysates.



TRIM31 (I-14): sc-79779. Western blot analysis of TRIM31 expression in A549 whole cell lysate.

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.