SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM23 (C-1): sc-393923

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The Power to Question

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. TRIM23 (tripartite motif-containing protein 23), also known as ARD1, ARFD1 or RNF46, is a 574 amino acid intracytoplasmic membrane protein that associates with the Golgi apparatus and with lysosomal structures. Belonging to both the TRIM protein family and the ADP ribosylation factor family of guanine nucleotide-binding proteins, TRIM23 plays a role in the formation of intracellular transport vesicles and aids in the movement of vesicles from one compartment to another. Additionally, TRIM23 interacts with cytohesin-1, an association that is thought to activate TRIM23 function. Three isoforms of TRIM23, designated α, β and γ, are expressed due to alternative splicing events.

REFERENCES

1. Mishima, K., et al. 1993. ARD 1, a 64-kDa guanine nucleotide-binding protein with a carboxyl-terminal ADP-ribosylation factor domain. J. Biol. Chem. 268: 8801-8807.
2. Vitale, N., et al. 1998. Localization of ADP-ribosylation factor domain protein 1 (ARD1) in lysosomes and Golgi apparatus. Proc. Natl. Acad. Sci. USA 95: 8613-8618.
3. Vitale, N., et al. 2000. Specific functional interaction of human cytohesin-1 and ADP-ribosylation factor domain protein (ARD1). J. Biol. Chem. 275: 21331-21339.

CHROMOSOMAL LOCATION

Genetic locus: TRIM23 (human) mapping to 5q12.3; Trim23 (mouse) mapping to 13 D1.

SOURCE

TRIM23 (C-1) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of TRIM23 of human origin.

PRODUCT

Each vial contains 200 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRIM23 (C-1) is available conjugated to agarose (sc-393923 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393923 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393923 PE), fluorescein (sc-393923 FITC), Alexa Fluor® 488 (sc-393923 AF488), Alexa Fluor® 546 (sc-393923 AF546), Alexa Fluor® 594 (sc-393923 AF594) or Alexa Fluor® 647 (sc-393923 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393923 AF680) or Alexa Fluor® 790 (sc-393923 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

APPLICATIONS

TRIM23 (C-1) is recommended for detection of TRIM23 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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 TRIM23 siRNA (h): sc-106640, TRIM23 siRNA (m): sc-154643, TRIM23 shRNA Plasmid (h): sc-106640-SH, TRIM23 shRNA Plasmid (m): sc-154643-SH, TRIM23 shRNA (h) Lentiviral Particles: sc-106640-V and TRIM23 shRNA (m) Lentiviral Particles: sc-154643-V.

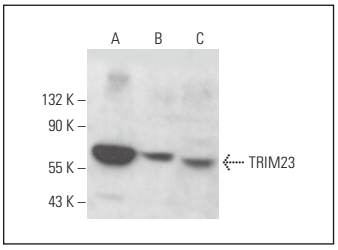
Molecular Weight of TRIM23: 64 kDa.

Positive Controls: Hep G2 cell lysate: sc-2227, 3T3-L1 cell lysate: sc-2243 or HEK293 whole cell lysate: sc-45136.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 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 m-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



TRIM23 (C-1): sc-393923. Western blot analysis of TRIM23 expression in Hep G2 (**A**), HEK293 (**B**) and 3T3-L1 (**C**) whole cell lysates.

SELECT PRODUCT CITATIONS

1. Sparrer, K.M.J., et al. 2017. TRIM23 mediates virus-induced autophagy via activation of TBK1. Nat. Microbiol. 2: 1543-1557.
2. Liu, X., et al. 2021. Herpesvirus-mediated stabilization of ICP0 expression neutralizes restriction by TRIM23. Proc. Natl. Acad. Sci. USA 118: e2113060118.

RESEARCH USE

For research use only, not for use in diagnostic procedures.