SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM29 (C-2): sc-376125

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Ataxia-telangiectasia (AT) is an autosomal recessive human genetic disease characterized by an elevated risk of cancer, immune defects, genetic instability and an increased sensitivity to radiation. For example, 10-15% of AT patients suffer an extremely high incidence of lymphoid malignancies incuding both T and B cell tumors by early adulthood. Interestingly, there is a total absence of myloid tumors in these patients. Although AT homozygotes are rare, the AT gene is likely to play a role in sporadic breast cancer and other common cancers. The human AT gene has been mapped to chromosome 11q23.3. The AT group D complementing gene has been cloned. The protein, designated TRIM29, or ATDC, has been shown to interact with the intermediate filament protein vimentin, a substrate for the PKC family of protein kinases, and with hPKCI-1, an inhibitor of the PKCs. Examination of the predicted TRIM29 amino acid sequence has revealed the presence of both zinc finger and leucine zipper motifs, suggesting that the protein may form homodimers and possibly associate with DNA.

REFERENCES

1. Kapp, L.N., et al. 1992. Cloning of a candidate gene for ataxia-telangiectasia group D. Am. J. Hum. Genet. 51: 45-54.
2. Richard, C.W., III., et al. 1993. A radiation hybrid map of human chromosome 11q22-q23 containing the ataxia-telangiectasia disease locus. Genomics 17: 1-5.

CHROMOSOMAL LOCATION

Genetic locus: TRIM29 (human) mapping to 11q23.3; Trim29 (mouse) mapping to 9 A5.1.

SOURCE

TRIM29 (C-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 563-587 near the C-terminus of TRIM29 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRIM29 (C-2) is available conjugated to agarose (sc-376125 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-376125 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-376125 PE), fluorescein (sc-376125 FITC), Alexa Fluor® 488 (sc-376125 AF488), Alexa Fluor® 546 (sc-376125 AF546), Alexa Fluor® 594 (sc-376125 AF594) or Alexa Fluor® 647 (sc-376125 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-376125 AF680) or Alexa Fluor® 790 (sc-376125 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-376125 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

RESEARCH USE

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

APPLICATIONS

TRIM29 (C-2) is recommended for detection of TRIM29 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), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

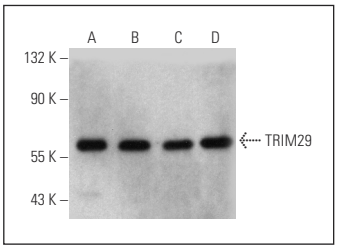
TRIM29 (C-2) is also recommended for detection of TRIM29 in additional species, including bovine and porcine.

Suitable for use as control antibody for TRIM29 siRNA (h): sc-43625, TRIM29 siRNA (m): sc-44434, TRIM29 shRNA Plasmid (h): sc-43625-SH, TRIM29 shRNA Plasmid (m): sc-44434-SH, TRIM29 shRNA (h) Lentiviral Particles: sc-43625-V and TRIM29 shRNA (m) Lentiviral Particles: sc-44434-V.

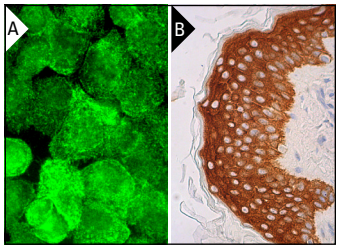
Molecular Weight of TRIM29: 66 kDa.

Positive Controls: RAT2 whole cell lysate: sc-364198, 3T3-L1 cell lysate: sc-2243 or RAW 264.7 whole cell lysate: sc-2211.

DATA



TRIM29 (C-2): sc-376125. Western blot analysis of TRIM29 expression in LNCaP (**A**), RAW 264.7 (**B**), 3T3-L1 (**C**) and RAT2 (**D**) whole cell lysates.



TRIM29 (C-2): sc-376125. Immunofluorescence staining of formalin-fixed A-431 cells showing cytoplasmic, membrane and nuclear localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human skin tissue showing cytoplasmic staining of keratinocytes Langerhans cells and melanocytes (**B**).

SELECT PRODUCT CITATIONS

1. Lin, E., et al. 2017. High-throughput microfluidic labyrinth for the label-free isolation of circulating tumor cells. Cell Syst. 5: 295-304.e4.
2. Toptan, T., et al. 2020. Proteomic approach to discover human cancer viruses from formalin-fixed tissues. JCI Insight 5: e143003.
3. Li, H., et al. 2022. Destabilization of TP53 by USP10 is essential for neonatal autophagy and survival. Cell Rep. 41: 111435.
4. Deng, Y., et al. 2023. TRIM29 (tripartite motif containing 29) alleviates NLRC4 (NLR family CARD domain containing protein 4) inflammasome related cerebral injury via promoting proteasomal degradation of NLRC4 in ischemic stroke. Stroke 54: 1377-1389.

STORAGE

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