SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM29 (A-5): sc-166718

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 11q22-q23. 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.

SOURCE

TRIM29 (A-5) is a mouse monoclonal antibody raised against amino acids 289-588 mapping at 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.

APPLICATIONS

TRIM29 (A-5) is recommended for detection of TRIM29 α and β isoforms of 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), 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).

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

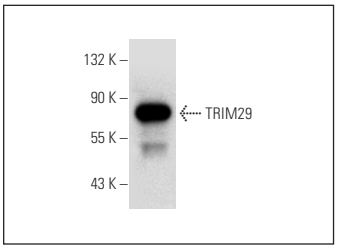
Molecular Weight of TRIM29: 66 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

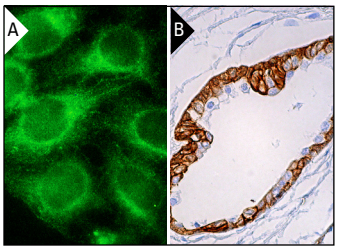
RECOMMENDED SUPPORT REAGENTS

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. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



TRIM29 (A-5): sc-166718. Western blot analysis of TRIM29 expression in HeLa whole cell lysate.



TRIM29 (A-5): sc-166718. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization (**A**). Immunoperoxidase staining of formalin fixed, paraffin-embedded human prostate tissue showing cytoplasmic and membrane staining of glandular cells (**B**).

SELECT PRODUCT CITATIONS

1. Kanno, Y., et al. 2014. TRIM29 as a novel prostate basal cell marker for diagnosis of prostate cancer. Acta Histochem. 116: 708-712.
2. Masuda, Y., et al. 2015. TRIM29 regulates the assembly of DNA repair proteins into damaged chromatin. Nat. Commun. 6: 7299.
3. Masuda, Y., et al. 2015. TRIM29 regulates the p63-mediated pathway in cervical cancer cells. Biochim. Biophys. Acta 1853: 2296-2305.
4. Yanagi, T., et al. 2018. Loss of TRIM29 alters keratin distribution to promote cell invasion in squamous cell carcinoma. Cancer Res. 78: 6795-6806.
5. Tokuchi, K., et al. 2021. Loss of FAM83H promotes cell migration and invasion in cutaneous squamous cell carcinoma via impaired keratin distribution. J. Dermatol. Sci. 104: 112-121.
6. Gao, G., et al. 2023. The NFIB/CARM1 partnership is a driver in preclinical models of small cell lung cancer. Nat. Commun. 14: 363.

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.