

TRIM29 (B-11): sc-374074

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 including both T and B cell tumors by early adulthood. Interestingly, there is a total absence of myeloid 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 hPKC δ -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.
3. Murnane, J.P., et al. 1994. Expression of the candidate AT gene ATDC is not detectable in a human cell line with a normal response to ionizing radiation. *Int. J. Radiat. Biol.* 66: S77-S84.
4. Leonhardt, E.A., et al. 1994. Nucleotide sequence analysis of a candidate gene for ataxia telangiectasia group D (ATDC). *Genomics* 19: 130-136.
5. Meyn, M.S. 1995. Ataxia-telangiectasia and cellular responses to DNA damage. *Cancer Res.* 55: 5991-6001.
6. Brzoska, P.M., et al. 1995. The product of the ataxia-telangiectasia group D complementing gene, ATDC, interacts with a protein kinase C substrate and inhibitor. *Proc. Natl. Acad. Sci. USA* 92: 7824-7828.

CHROMOSOMAL LOCATION

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

SOURCE

TRIM29 (B-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 563-596 near the C-terminus of TRIM29 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_{2a}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374074 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

TRIM29 (B-11) is recommended for detection of TRIM29 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g 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).

TRIM29 (B-11) 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.

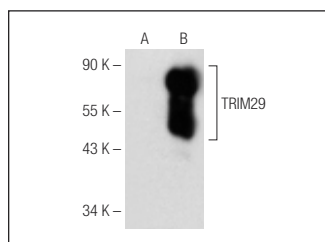
Positive Controls: HeLa whole cell lysate: sc-2200 or TRIM29 (h): 293T Lysate: sc-112361.

RECOMMENDED SUPPORT REAGENTS

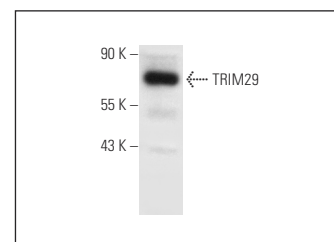
To ensure optimal results, the following support reagents are recommended:

- 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ 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-IgG κ BP-FITC: sc-516140 or m-IgG κ 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



TRIM29 (B-11): sc-374074. Western blot analysis of TRIM29 expression in non-transfected: sc-117752 (A) and human TRIM29 transfected: sc-112361 (B) 293T whole cell lysates.



TRIM29 (B-11): sc-374074. Western blot analysis of TRIM29 expression in HeLa 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.