SANTA CRUZ BIOTECHNOLOGY, INC.

ATDC (C-17): sc-1614

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% percent 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 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 ATDC 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. Leonhardt, E.A., et al. 1994. Nucleotide sequence analysis of a candidate gene for ataxia-telangiectasia group D (ATDC). Genomics 19: 130-136.
4. Murnane, J.P., et al. 1994. Expression of the candidate A-T gene ATDC is not detectable in a human cell line with a normal response to ionizing radiation. Int. J. Radiat. Biol. 66: S77-S84.

CHROMOSOMAL LOCATION

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

SOURCE

ATDC (C-17) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of ATDC 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-1614 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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.

APPLICATIONS

ATDC (C-17) is recommended for detection of ATDC (ataxia-telangiectasia group D complementing gene) 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

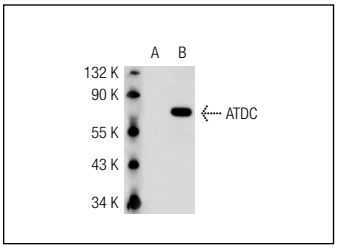
ATDC (C-17) is also recommended for detection of ATDC (ataxia-telangiectasia group D complementing gene) in additional species, including equine, canine, bovine and porcine.

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

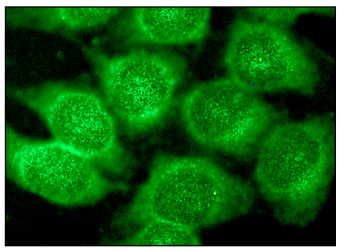
Molecular Weight of ATDC: 66 kDa.

Positive Controls: ATDC (h): 293T Lysate: sc-112361, HeLa whole cell lysate: sc-2200 or mouse PBL tissue extract.

DATA



ATDC (C-17): sc-1614. Western blot analysis of ATDC expression in non-transfected: sc-117752 (**A**) and human ATDC transfected: sc-112361 (**B**) 293T whole cell lysates.



ATDC (C-17): sc-1614. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear and cytoplasmic localization.

SELECT PRODUCT CITATIONS

1. Hosoi, Y., et al. 2006. Suppression of anchorage-independent growth by expression of the ataxia-telangiectasia group D complementing gene, ATDC. Biochem. Biophys. Res. Commun. 348: 728-734.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.