

# TRIM29 (B-2): sc-166707

## 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 hPKC1-1, 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.

## CHROMOSOMAL LOCATION

Genetic locus: TRIM29 (human) mapping to 11q23.3.

## SOURCE

TRIM29 (B-2) 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<sub>2a</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TRIM29 (B-2) is available conjugated to agarose (sc-166707 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-166707 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-166707 PE), fluorescein (sc-166707 FITC), Alexa Fluor® 488 (sc-166707 AF488), Alexa Fluor® 546 (sc-166707 AF546), Alexa Fluor® 594 (sc-166707 AF594) or Alexa Fluor® 647 (sc-166707 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-166707 AF680) or Alexa Fluor® 790 (sc-166707 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA

## APPLICATIONS

TRIM29 (B-2) is recommended for detection of TRIM29 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.

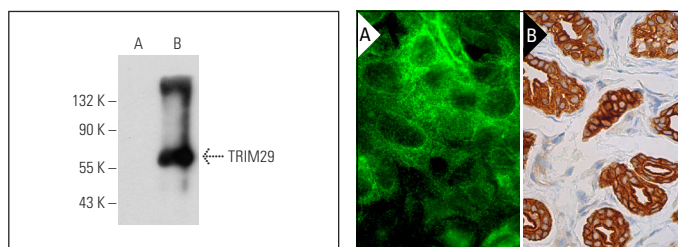
Molecular Weight of TRIM29: 66 kDa.

Positive Controls: TRIM29 (h): 293T Lysate : sc-112361.

## 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 (B-2): sc-166707. 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-2): sc-166707. Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human sweat gland tissue showing cytoplasmic and membrane staining of glandular cells (B).

## SELECT PRODUCT CITATIONS

- Yang, H., et al. 2015. ATDC (ataxia telangiectasia group D complementing) promotes radioresistance through an interaction with the RNF8 ubiquitin ligase. *J. Biol. Chem.* 290: 27146-27157.
- Xing, J., et al. 2017. TRIM29 promotes DNA virus infections by inhibiting innate immune response. *Nat. Commun.* 8: 945.
- Xing, J., et al. 2018. TRIM29 negatively regulates the type I IFN production in response to RNA virus. *J. Immunol.* 201: 183-192.
- Palmbos, P., et al. 2023. TRIM29 promotes bladder cancer invasion by regulating the intermediate filament network and focal adhesion. *Res. Sq.* E-published.

## 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.

## PROTOCOLS

See our web site at [www.scbt.com](http://www.scbt.com) for detailed protocols and support products.