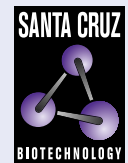


# TBRG1 (D-9): sc-515620



The Power to Question

## BACKGROUND

TBRG1 (transforming growth factor beta regulator 1), also known as TB-5 or NIAM, is a 411 amino acid protein that localizes to the nucleus and contains one FY-rich C-terminal domain and one FY-rich N-terminal domain. Expressed in a variety of tissues, including liver, lung and pancreas, TBRG1 functions as a growth inhibitor that interacts with p14 ARF and MDM2 and is involved in maintaining chromosome stability. Additionally, TBRG1 can activate p53 function, thereby causing cell-cycle arrest and effectively restricting cell proliferation. TBRG1 expression is downregulated in breast, pancreas and kidney tumors, suggesting that TBRG1 participates in tumor suppression. TBRG1 exists as multiple alternatively spliced isoforms and is subject to MDM2-mediated ubiquitination and subsequent proteasomal degradation.

## REFERENCES

1. Babalola, G.O. and Schultz, R.M. 1995. Modulation of gene expression in the preimplantation mouse embryo by TGF- $\alpha$  and TGF- $\beta$ . *Mol. Reprod. Dev.* 41: 133-139.
2. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610614. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
3. Tompkins, V., et al. 2006. Identification of novel ARF binding proteins by two-hybrid screening. *Cell Cycle* 5: 641-646.
4. Tompkins, V.S., et al. 2007. A novel nuclear interactor of ARF and MDM2 (NIAM) that maintains chromosomal stability. *J. Biol. Chem.* 282: 1322-1333.
5. Hagen, J., et al. 2008. Generation and characterization of monoclonal antibodies to NIAM: a nuclear interactor of ARF and MDM2. *Hybridoma* 27: 159-166.

## CHROMOSOMAL LOCATION

Genetic locus: TBRG1 (human) mapping to 11q24.2; Tbrg1 (mouse) mapping to 9 A4.

## SOURCE

TBRG1 (D-9) is a mouse monoclonal antibody raised against amino acids 223-411 mapping at the C-terminus of TBRG1 of human origin.

## PRODUCT

Each vial contains 200  $\mu$ g IgG<sub>1</sub> kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

TBRG1 (D-9) is available conjugated to agarose (sc-515620 AC), 500  $\mu$ g/0.25 ml agarose in 1 ml, for IP; to HRP (sc-515620 HRP), 200  $\mu$ g/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-515620 PE), fluorescein (sc-515620 FITC), Alexa Fluor® 488 (sc-515620 AF488), Alexa Fluor® 546 (sc-515620 AF546), Alexa Fluor® 594 (sc-515620 AF594) or Alexa Fluor® 647 (sc-515620 AF647), 200  $\mu$ g/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-515620 AF680) or Alexa Fluor® 790 (sc-515620 AF790), 200  $\mu$ g/ml, for Near-Infrared (NIR) WB, IF and FCM.

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## APPLICATIONS

TBRG1 (D-9) is recommended for detection of TBRG1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2  $\mu$ g per 100-500  $\mu$ 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).

Suitable for use as control antibody for TBRG1 siRNA (h): sc-96858, TBRG1 siRNA (m): sc-154124, TBRG1 shRNA Plasmid (h): sc-96858-SH, TBRG1 shRNA Plasmid (m): sc-154124-SH, TBRG1 shRNA (h) Lentiviral Particles: sc-96858-V and TBRG1 shRNA (m) Lentiviral Particles: sc-154124-V.

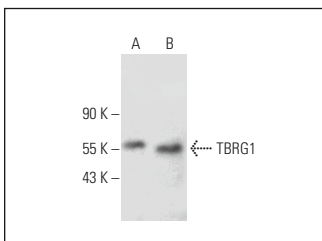
Molecular Weight of TBRG1: 50 kDa.

Positive Controls: RIN-m5F whole cell lysate: sc-364792, RAW 264.7 whole cell lysate: sc-2211 or TK-1 whole cell lysate: sc-364798.

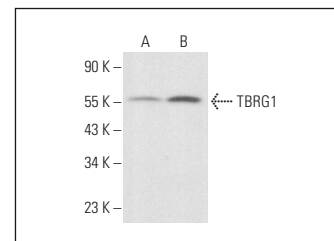
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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



TBRG1 (D-9): sc-515620. Western blot analysis of TBRG1 expression in AMJ2-C8 (A) and RIN-m5F (B) whole cell lysates.



TBRG1 (D-9): sc-515620. Western blot analysis of TBRG1 expression in RAW 264.7 (A) and TK-1 (B) whole cell lysates.

## SELECT PRODUCT CITATIONS

1. Lukauskas, S., et al. 2024. Decoding chromatin states by proteomic profiling of nucleosome readers. *Nature* 627: 671-679.

## 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.