SANTA CRUZ BIOTECHNOLOGY, INC.

# TRIM5 (D-6): sc-373864

SANTA CRUZ BIOTECHNOLOGY

*The Power to Question*

## BACKGROUND

TRIM5 is a 493 amino acid member of the large tripartite motif protein (TRIM) family. TRIM proteins are composed of three zinc-binding domains, a RING, a B-box 2 and a coiled-coil domain, and they use homomultimerization to identify different cell compartments. Some TRIM proteins, such as TRIM5, also possess a carboxy-terminal B30.2 (SPRY) domain and localize to the cytoplasm. Isoform α of TRIM5 mediates innate intracellular retroviral resistance, which is dependent on its carboxy-terminal domain. The three variable regions of the B30.2 domain form loops on one side of the B30.2 core structure of TRIM5 which may form a binding surface for the virus. Isoform α TRIM5 trimerization plays a major role in its affinity for the retroviral capsid, and in its ability to inhibit virus infection. The linker region between the coiled-coil and B30.2 domains of TRIM5α is required for this trimerization. TRIM5α blocks infection after the virus has entered the cell.

## REFERENCES


1. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 608487. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
2. Berthoux, L., et al. 2005. Disruption of human TRIM5α antiviral activity by nonhuman primate orthologues. J. Virol. 79: 7883-7888.
3. Javanbakht, H., et al. 2005. The contribution of RING and B-box 2 domains to retroviral restriction mediated by monkey TRIM5α. J. Biol. Chem. 280: 26933-26940.


## CHROMOSOMAL LOCATION

Genetic locus: TRIM5 (human) mapping to 11p15.4.

## SOURCE

TRIM5 (D-6) is a mouse monoclonal antibody raised against amino acids 166-225 mapping within an internal region of TRIM5 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.

TRIM5 (D-6) is available conjugated to agarose (sc-373864 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-373864 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-373864 PE), fluorescein (sc-373864 FITC), Alexa Fluor® 488 (sc-373864 AF488), Alexa Fluor® 546 (sc-373864 AF546), Alexa Fluor® 594 (sc-373864 AF594) or Alexa Fluor® 647 (sc-373864 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-373864 AF680) or Alexa Fluor® 790 (sc-373864 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.



## STORAGE

Store at 4° C, **DO NOT FREEZE**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

## APPLICATIONS

TRIM5 (D-6) is recommended for detection of TRIM5 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for TRIM5 siRNA (h): sc-61718, TRIM5 shRNA Plasmid (h): sc-61718-SH and TRIM5 shRNA (h) Lentiviral Particles: sc-61718-V.

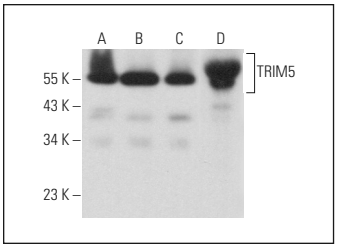
Molecular Weight of TRIM5: 55 kDa.

Positive Controls: JAR cell lysate: sc-2276, MDA-MB-231 cell lysate: sc-2232 or MCF7 whole cell lysate: sc-2206.

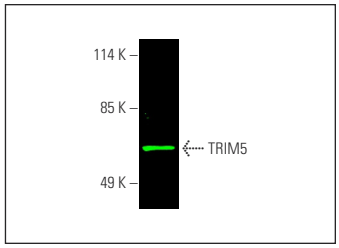
## RECOMMENDED SUPPORT REAGENTS

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.

## DATA




TRIM5 (D-6): sc-373864. Western blot analysis of TRIM5 expression in JAR (**A**), MDA-MB-231 (**B**) and MCF7 (**C**) whole cell lysates and human breast tissue extract (**D**).




TRIM5 (D-6): sc-373864. Near-Infrared western blot analysis of TRIM5 expression in TF-1 whole cell lysate. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 680: sc-516180.

## SELECT PRODUCT CITATIONS


1. Soday, L., et al. 2019. Quantitative temporal proteomic analysis of vaccinia virus infection reveals regulation of histone deacetylases by an interferon antagonist. Cell Rep. 27: 1920-1933.e7.
2. Sauter, M.M. and Brandt, C.R. 2021. Knockdown of TRIM5α or TRIM11 increases lentiviral vector transduction efficiency of human muller cells. Exp. Eye Res. 240: 108436.


## RESEARCH USE

For research use only, not for use in diagnostic procedures.