SANTA CRUZ BIOTECHNOLOGY, INC.

# TRIM (D-2): sc-365105

## BACKGROUND

TRIM (T-cell receptor interacting molecule) is a novel transmembrane adaptor protein which associates and comodulates with the TCR-CD3ζ complex in human T lymphocytes and T cell lines. TRIM is a type III transmembrane protein that contains an 8-amino acid extracellular domain and an intracellular domain that contains four potential phosphorylation sites and eight tyrosine residues, at least three of which may be involved in SH2-mediated interactions with other signaling proteins. The human TRIM gene maps to chromosome 3q13, which is a susceptibility locus for rheumatoid arthritis and is in proximity to the CD28, CD86, and CD80 genes, all of which encode T-cell costimulatory molecules. TRIM is expressed in T-cells and natural killer cells, but not in B cells or monocytic cells. In T-cells, TRIM localizes to the cell membrane and associates with CD3ζ and CD3ε.

## REFERENCES


1. Bruyns, E., Marie-Cardine, A., Kirchgessner, H., Sagolla, K., Shevchenko, A., Mann, M., Autschbach, F., Bensussan, A., Meuer, S. and Schraven, B. 1998. T cell receptor (TCR) interacting molecule (TRIM), a novel disulfide-linked dimer associated with the TCR-CD3-ζ complex, recruits intracellular signaling proteins to the plasma membrane. J. Exp. Med. 188: 561-575.
2. Kersh, G.J., Kersh, E.N., Fremont, D.H. and Allen, P.M. 1998. High- and low-potency ligands with similar affinities for the TCR: the importance of kinetics in TCR signaling. Immunity 9: 817-826.
3. Hubener, C., Mincheva, A., Lichter, P., Schraven, B. and Bruyns, E. 2000. Genomic organization and chromosomal localization of the human gene encoding the T-cell receptor-interacting molecule (TRIM). Immunogenetics 51: 154-158.


## CHROMOSOMAL LOCATION

Genetic locus: TRAT1 (human) mapping to 3q13.13; Trat1 (mouse) mapping to 16 B5.

## SOURCE

TRIM (D-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 145-183 near the C-terminus of TRIM of mouse 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.

TRIM (D-2) is available conjugated to agarose (sc-365105 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-365105 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-365105 PE), fluorescein (sc-365105 FITC), Alexa Fluor® 488 (sc-365105 AF488), Alexa Fluor® 546 (sc-365105 AF546), Alexa Fluor® 594 (sc-365105 AF594) or Alexa Fluor® 647 (sc-365105 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-365105 AF680) or Alexa Fluor® 790 (sc-365105 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-365105 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

TRIM (D-2) is recommended for detection of TRIM of mouse, rat and 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 TRIM siRNA (h): sc-106637, TRIM siRNA (m): sc-154641, TRIM shRNA Plasmid (h): sc-106637-SH, TRIM shRNA Plasmid (m): sc-154641-SH, TRIM shRNA (h) Lentiviral Particles: sc-106637-V and TRIM shRNA (m) Lentiviral Particles: sc-154641-V.

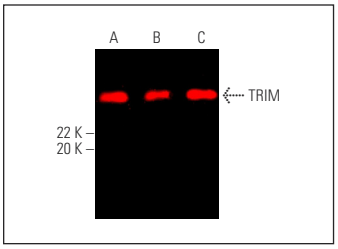
Molecular Weight of TRIM: 29 kDa.

Positive Controls: Jurkat whole cell lysate: sc-2204, ALL-SIL whole cell lysate: sc-364356 or CCRF-CEM cell lysate: sc-2225.

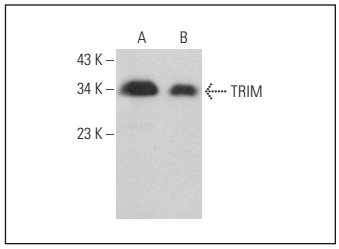
## RECOMMENDED SUPPORT REAGENTS

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




TRIM (D-2): sc-365105. Near-infrared western blot analysis of TRIM expression in Jurkat (**A**), ALL-SIL (**B**) and CCRF-CEM (**C**) whole cell lysates. Blocked with UltraCruz® Blocking Reagent: sc-516214. Detection reagent used: m-IgGκ BP-CFL 790: sc-516181.




TRIM (D-2): sc-365105. Western blot analysis of TRIM expression in Jurkat (**A**) and ALL-SIL (**B**) whole cell lysates.

## 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.