SANTA CRUZ BIOTECHNOLOGY, INC.

TRIM (G-10): sc-393658

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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

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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.
4. Huynh, T., Wurch, A., Bruyns, E., Korinek, V., Schraven, B. and Eichmann, K. 2001. Developmentally regulated expression of the transmembrane adaptor protein TRIM in fetal and adult T cells. Scand. J. Immunol. 54: 146-154.
5. Kirchgessner, H., Dietrich, J., Scherer, J., Isomäki, P., Korinek, V., Hilgert, I., Bruyns, E., Leo, A., Cope, A.P. and Schraven, B. 2001. The transmembrane adaptor protein TRIM regulates T cell receptor (TCR) expression and TCR-mediated signaling via an association with the TCR ζ chain. J. Exp. Med. 193: 1269-1284.

CHROMOSOMAL LOCATION

Genetic locus: TRAT1 (human) mapping to 3q13.13.

SOURCE

TRIM (G-10) is a mouse monoclonal antibody raised against amino acids 1-186 representing full length TRIM 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.

STORAGE

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

APPLICATIONS

TRIM (G-10) is recommended for detection of TRIM 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 TRIM siRNA (h): sc-106637, TRIM shRNA Plasmid (h): sc-106637-SH and TRIM shRNA (h) Lentiviral Particles: sc-106637-V.

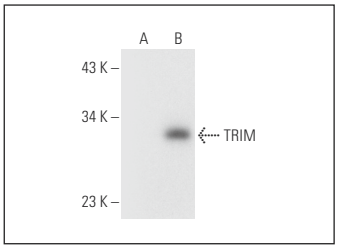
Molecular Weight of TRIM: 29 kDa.

Positive Controls: CCRF-CEM cell lysate: sc-2225 or TRIM (h): 293T Lysate: sc-114237.

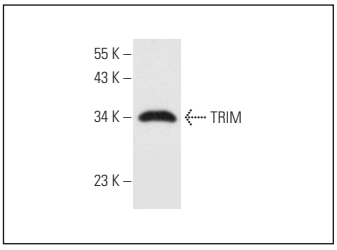
RECOMMENDED SUPPORT REAGENTS

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 (G-10): sc-393658. Western blot analysis of TRIM expression in non-transfected: sc-117752 (**A**) and human TRIM transfected: sc-114237 (**B**) 293T whole cell lysates.



TRIM (G-10): sc-393658. Western blot analysis of TRIM expression in CCRF-CEM whole cell lysate.

RESEARCH USE

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

PROTOCOLS

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