

TRIM (C-20): sc-15602

BACKGROUND

TRIM (T-cell receptor interacting molecule) is a novel transmembrane adaptor protein which associates and comodulates with the TCR-CD3z 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 8 tyrosine residues, at least 3 of which may be involved in SH2-mediated interactions with other signaling proteins. The human TRIM gene maps to chromosome 3q13.13, 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 CD3z and CD3e.

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-zeta 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.
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.

CHROMOSOMAL LOCATION

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

SOURCE

TRIM (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of TRIM of mouse origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-15602 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

STORAGE

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

APPLICATIONS

TRIM (C-20) is recommended for detection of TRIM of mouse, rat and human origin by Western Blotting (starting dilution 1:200, 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).

TRIM (C-20) is also recommended for detection of TRIM in additional species, including equine, bovine and porcine.

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.

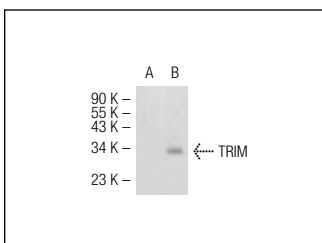
Molecular Weight of TRIM: 29 kDa.

Positive Controls: TRIM (h): 293T Lysate : sc-114237 or Human PBL whole cell lysate.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 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 donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



TRIM (C-20): sc-15602. Western blot analysis of TRIM expression in non-transfected: sc-117752 (A) and human TRIM transfected: sc-114237 (B) 293T whole cell lysates.

RESEARCH USE

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