

TRAM1 (I-13): sc-87483

BACKGROUND

TRAM1 (translocation associated membrane protein 1), also known as TRAMP or PNAS-8, is a 374 amino acid protein that localizes to the membrane of the endoplasmic reticulum (ER) and contains one TLC domain. Functioning as a stimulatory protein, TRAM1 influences glycosylation and is required for the translocation of secretory proteins across the ER membrane. The gene encoding TRAM1 maps to human chromosome 8, which consists of nearly 146 million base pairs, houses more than 800 genes and is associated with a variety of diseases and malignancies. Schizophrenia, bipolar disorder, trisomy 8, Pfeiffer syndrome, congenital hypothyroidism, Waardenburg syndrome and some leukemias and lymphomas are thought to occur as a result of defects in specific genes that map to chromosome 8.

REFERENCES

- Walter, P. 1992. Protein translocation. Travelling by TRAM. *Nature* 357: 22-23.
- Görllich, D., et al. 1992. A protein of the endoplasmic reticulum involved early in polypeptide translocation. *Nature* 357: 47-52.
- Wildenauer, D.B. and Schwab, S.G. 1999. Chromosomes 8 and 10 workshop. *Am. J. Med. Genet.* 88: 239-243.
- Winter, E. and Ponting, C.P. 2002. TRAM, LAG1 and CLN8: members of a novel family of lipid-sensing domains? *Trends Biochem. Sci.* 27: 381-383.
- Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 605190. World Wide Web URL: <http://www.ncbi.nlm.nih.gov/omim/>
- Hegde, R.S. and Kang, S.W. 2008. The concept of translocational regulation. *J. Cell Biol.* 182: 225-232.
- Kagan, J.C., et al. 2008. TRAM couples endocytosis of toll-like receptor 4 to the induction of interferon- β . *Nat. Immunol.* 9: 361-368.

CHROMOSOMAL LOCATION

Genetic locus: TRAM1 (human) mapping to 8q13.3; Tram1 (mouse) mapping to 1 A3.

SOURCE

TRAM1 (I-13) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of TRAM1 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-87483 P, (100 μ g 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

TRAM1 (I-13) is recommended for detection of TRAM1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ 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).

TRAM1 (I-13) is also recommended for detection of TRAM1 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for TRAM1 siRNA (h): sc-77740, TRAM1 siRNA (m): sc-154578, TRAM1 shRNA Plasmid (h): sc-77740-SH, TRAM1 shRNA Plasmid (m): sc-154578-SH, TRAM1 shRNA (h) Lentiviral Particles: sc-77740-V and TRAM1 shRNA (m) Lentiviral Particles: sc-154578-V.

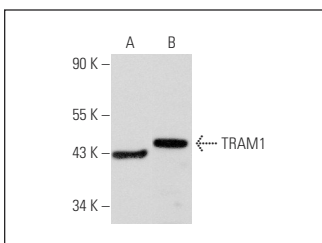
Molecular Weight of TRAM1: 36 kDa.

Positive Controls: Ramos cell lysate: sc-2216, PC-3 cell lysate: sc-2220 or human liver extract: sc-363766.

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



TRAM1 (I-13): sc-87483. Western blot analysis of TRAM1 expression in PC-3 whole cell lysate (A) and human liver tissue extract (B).

RESEARCH USE

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

PROTOCOLS

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