

Tiam1 (N-15): sc-871

BACKGROUND

A gene designated Tiam1 was originally identified as an invasion-inducing gene by proviral tagging in combination with *in vitro* selection for invasiveness. Transfection of truncated Tiam1 cDNAs into noninvasive cells made these cells invasive. The predicted Tiam1 protein exhibits both Dbl and Pleckstrin-homologous domains characteristic of GDP-GTP exchange proteins for Rho-like proteins that have been implicated in cytoskeletal organization. In fibroblasts, Tiam1 induces a phenotype similar to that of constitutively activated (V12) Rac1, including membrane ruffling, and this is inhibited by dominant negative (N17) Rac1. Moreover, T lymphoma cells expressing (V12) Rac1 become invasive, supporting the suggestion that the Tiam1-Rac signaling pathway may be involved in the invasion and metastasis of tumor cells.

CHROMOSOMAL LOCATION

Genetic locus: TIAM1 (human) mapping to 21q22.11; Tiam1 (mouse) mapping to 16 C3.3.

SOURCE

Tiam1 (N-15) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the N-terminus of Tiam1 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-871 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.

RESEARCH USE

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

APPLICATIONS

Tiam1 (N-15) is recommended for detection of Tiam1 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).

Tiam1 (N-15) is also recommended for detection of Tiam1 in additional species, including equine and canine.

Suitable for use as control antibody for Tiam1 siRNA (h): sc-36669, Tiam1 siRNA (m): sc-36670, Tiam1 shRNA Plasmid (h): sc-36669-SH, Tiam1 shRNA Plasmid (m): sc-36670-SH, Tiam1 shRNA (h) Lentiviral Particles: sc-36669-V and Tiam1 shRNA (m) Lentiviral Particles: sc-36670-V.

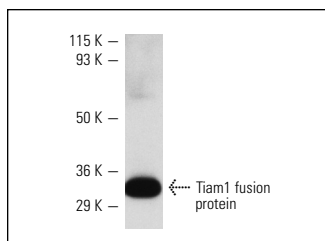
Molecular Weight of Tiam1: 200 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

DATA



Tiam1 (N-15): sc-871. Western blot analysis of human recombinant Tiam1 fusion protein.

SELECT PRODUCT CITATIONS

- Otsuki, Y., et al. 2003. Guanine nucleotide exchange factor, Tiam1, directly binds to c-Myc and interferes with c-Myc-mediated apoptosis in rat-1 fibroblasts. *J. Biol. Chem.* 278: 5132-5140.
- Moore, F., et al. 2007. An alternative pathway of NFκB activation results in maturation and T cell priming activity of dendritic cells overexpressing a mutated IκB-α. *J. Immunol.* 178: 1301-1311.
- Wan, Z., et al. 2010. Human parvovirus B19 causes cell cycle arrest of human erythroid progenitors via deregulation of the E2F family of transcription factors. *J. Clin. Invest.* 120: 3530-3544.
- Vromman, A.T., et al. 2013. β-amyloid context intensifies vascular smooth muscle cells induced-inflammatory response and de-differentiation. *Aging Cell* 12: 358-369.

PROTOCOLS

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



Try **Tiam1 (E-7): sc-393315** or **Tiam1 (G-1): sc-393176**, our highly recommended monoclonal alternatives to Tiam1 (N-15). Also, for AC, HRP, FITC, PE, Alexa Fluor® 488 and Alexa Fluor® 647 conjugates, see **Tiam1 (E-7): sc-393315**.