

Tiam1 (F-11): sc-377355

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.

REFERENCES

- Hart, M.J., et al. 1991. Catalysis of guanine nucleotide exchange on the CDC42Hs protein by the Dbl oncogene product. *Nature* 354: 311-314.
- Hall, A. 1992. Ras-related GTPases and the cytoskeleton. *Mol. Biol. Cell* 3: 475-479.

CHROMOSOMAL LOCATION

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

SOURCE

Tiam1 (F-11) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 2-27 at the N-terminus of Tiam1 of mouse origin.

PRODUCT

Each vial contains 200 µg IgM kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-377355 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer

APPLICATIONS

Tiam1 (F-11) is recommended for detection of Tiam1 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 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.

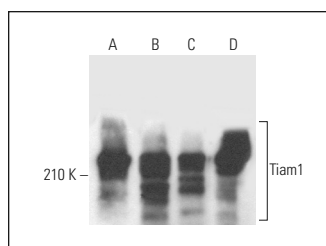
Molecular Weight of Tiam1: 200 kDa.

Positive Controls: HuT 78 whole cell lysate: sc-2208, Ramos cell lysate: sc-2216 or Jurkat whole cell lysate: sc-2204.

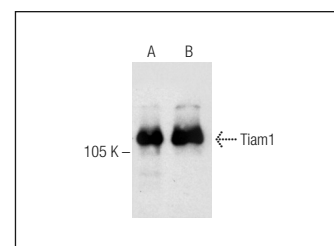
RECOMMENDED SUPPORT REAGENTS

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 L-Agarose: sc-2336 (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



Tiam1 (F-11): sc-377355. Western blot analysis of Tiam1 expression in SW480 (A), Jurkat (B), HEK293T (C) and Ramos (D) whole cell lysates.



Tiam1 (F-11): sc-377355. Western blot analysis of Tiam1 expression in HuT 78 (A) and Ramos (B) whole cell lysates.

SELECT PRODUCT CITATIONS

- Bravo-Cordero, J.J., et al. 2016. A novel high content analysis tool reveals Rab8-driven Actin and FA reorganization through Rho GTPases and capain/MT1. *J. Cell Sci.* 129: 1734-1749.

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.

PROTOCOLS

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



See **Tiam1 (E-7): sc-393315** for Tiam1 antibody conjugates, including AC, HRP, FITC, PE, and Alexa Fluor® 488, 546, 594, 647, 680 and 790.