

# Tiam2 (C-5): sc-514090



The Power to Question

## BACKGROUND

A gene designated Tiam1 was originally identified as an invasion-inducing gene by proviral tagging in combination with *in vitro* selection for invasiveness. The noninvasive cells were made invasive by transfection of truncated Tiam1 cDNAs into the noninvasive cells. The predicted Tiam1 protein exhibits both Dbl and Pleckstrin-homologous domains (2-4). In fibroblasts, Tiam1 induces a phenotype similar to that of constitutively activated (V12) Rac1. T-cell lymphoma invasion and metastasis 2 (Tiam2) is expressed as a 3.3 kb transcript in the cerebrum and as an 4.4 kb transcript in the cerebellum and testis. The 4.4 kb message encodes a longer form of the 3.3 kb mRNA predicted protein, and both contain homology to the Dbl-homologous region and Pleckstrin-homologous regions of Tiam1. Purified Tiam2 shows GDP-GTP exchange activity.

## 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.
- Habets, G.G.M., et al. 1994. Identification of an invasion-inducing gene, Tiam1, that encodes a protein with homology to GDP-GTP exchangers for Rho-like proteins. *Cell* 77: 537-549.
- Zheng, Y., et al. 1994. Control of the yeast bud-site assembly GTPase Cdc42. Catalysis of guanine nucleotide exchange by Cdc24 and stimulation of GTPase activity by Bem3. *J. Biol. Chem.* 269: 2369-2372.
- Horii, Y., et al. 1994. A novel oncogene, ost, encodes a guanine nucleotide exchange factor that potentially links Rho and Rac signaling pathways. *EMBO J.* 13: 4776-4786.
- Michiels, F., et al. 1995. A role for Rac in Tiam1-induced membrane ruffling and invasion. *Nature* 375: 338.
- Chiu, C.Y., et al. 1999. Cloning and characterization of T-cell lymphoma invasion and metastasis 2 (Tiam2), a novel guanine nucleotide exchange factor related to Tiam1. *Genomics* 61: 66-73.

## CHROMOSOMAL LOCATION

Genetic locus: TIAM2 (human) mapping to 6q25.2; Tiam2 (mouse) mapping to 17 A1.

## SOURCE

Tiam2 (C-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1630-1655 near the C-terminus of Tiam2 of human 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-514090 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

Tiam2 (C-5) is recommended for detection of Tiam2 short and long forms 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).

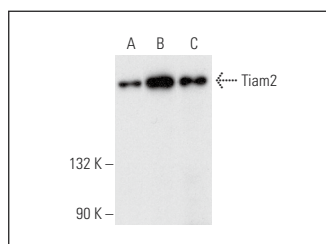
Suitable for use as control antibody for Tiam2 siRNA (h): sc-41736, Tiam2 siRNA (m): sc-41737, Tiam2 shRNA Plasmid (h): sc-41736-SH, Tiam2 shRNA Plasmid (m): sc-41737-SH, Tiam2 shRNA (h) Lentiviral Particles: sc-41736-V and Tiam2 shRNA (m) Lentiviral Particles: sc-41737-V.

Positive Controls: rat cerebellum extract: sc-2398, rat brain extract: sc-2392 or mouse brain extract: sc-2253.

## 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



Tiam2 (C-5): sc-514090. Western blot analysis of Tiam2 expression in rat brain (A), rat cerebellum (B) and mouse brain (C) tissue extracts.

## 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](http://www.scbt.com) for detailed protocols and support products.