**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**


**CHROMOSOMAL LOCATION**

Genetic locus: TIAM1 (human) mapping to 21q22.1; Tiam1 (mouse) mapping to 16 C3.3.

**SOURCE**

Tiam1 (E-7) is a mouse monoclonal antibody raised against amino acids 1-300 mapping at the N-terminus of Tiam1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Tiam1 (E-7) is available conjugated to agarose (sc-393315 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-393315 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoc erythrin (sc-393315 PE), fluorescein (sc-393315 FITC), Alexa Fluor® 488 (sc-393315 AF488), Alexa Fluor® 546 (sc-393315 AF546), Alexa Fluor® 594 (sc-393315 AF594) or Alexa Fluor® 647 (sc-393315 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393315 AF680) or Alexa Fluor® 790 (sc-393315 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

**APPLICATIONS**

Tiam1 (E-7) 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, SW480 cell lysate: sc-2219 or Ramos cell lysate: sc-2216.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended:

1) Western Blotting: use m-IgG1 BP-HRP: sc-516102 or m- IgG1 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 A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

3) Immunofluorescence: use m-IgG1 BP-FITC: sc-516140 or m-IgG1 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**

**SELECT PRODUCT CITATIONS**


**STORAGE**

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

Alexa Fluor® is a trademark of Molecular Probes, Inc., Oregon, USA.