

Tiam1 (C-16): sc-872

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) Rac 1, including membrane ruffling, and this is inhibited by dominant negative (N17) Rac 1. Moreover, T lymphoma cells expressing (V12) Rac 1 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 (C-16) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping at the C-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-872 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

Tiam1 (C-16) 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), immunohistochemistry (including paraffin-embedded sections) (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 (C-16) is also recommended for detection of Tiam1 in additional species, including equine, canine, porcine and avian.

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 or human heart extract: sc-363763.

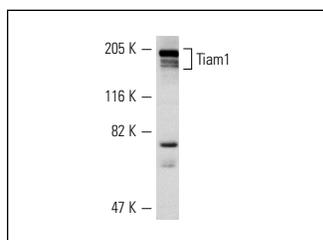
STORAGE

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

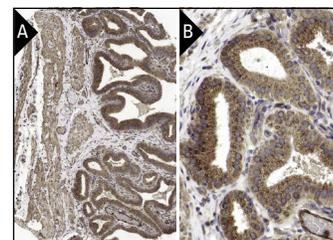
RESEARCH USE

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

DATA



Tiam1 (C-16): sc-872. Western blot analysis of Tiam1 expression in NIH/3T3 whole cell lysate.



Tiam1 (C-16): sc-872. Immunoperoxidase staining of formalin fixed, paraffin-embedded human gall bladder tissue showing cytoplasmic staining of glandular cells at low (A) and high (B) magnifications. Kindly provided by The Swedish Human Protein Atlas (HPA) program.

SELECT PRODUCT CITATIONS

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- Grönholm, M., et al. 2011. TCR-induced activation of LFA-1 involves signaling through Tiam1. *J. Immunol.* 187: 3613-3619.
- Tortosa, E., et al. 2011. Microtubule-associated protein 1B (MAP1B) is required for dendritic spine development and synaptic maturation. *J. Biol. Chem.* 286: 40638-40648.
- Aslan, J.E., et al. 2011. S6K1 and mTOR regulate Rac1-driven platelet activation and aggregation. *Blood* 118: 3129-3136.
- Kirschner, N., et al. 2011. CD44 regulates tight-junction assembly and barrier function. *J. Invest. Dermatol.* 131: 932-943.
- Huang, J., et al. 2012. Tiam1 is associated with hepatocellular carcinoma metastasis. *Int. J. Cancer* 32: 90-100.
- Li, J., et al. 2012. Tiam1, negatively regulated by miR-22, miR-183 and miR-31, is involved in migration, invasion and viability of ovarian cancer cells. *Oncol. Rep.* 27: 1835-1842.
- Du, X., et al. 2012. Clinical value of Tiam1-Rac1 signaling in primary gallbladder carcinoma. *Med. Oncol.* 29: 1873-1878.



Try **Tiam1 (E-7): sc-393315** or **Tiam1 (G-1): sc-393176**, our highly recommended monoclonal alternatives to Tiam1 (C-16). Also, for AC, HRP, FITC, PE, Alexa Fluor[®] 488 and Alexa Fluor[®] 647 conjugates, see **Tiam1 (E-7): sc-393315**.