Rac GAP1 (B-7): sc-166477

**BACKGROUND**

A large number of low molecular weight, GTP binding proteins of the Ras superfamily have been identified. These proteins regulate many fundamental processes in all eukaryotic cells such as growth, vesicle traffic and cytoskeletal organization. GTpase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. Through this function, GAPs negatively regulate Ras-mediated signaling. Rac GAP1 (Rac GTpase activating protein 1), also known as MgcRacGAP (male germ cell Rac GTpase activating protein), ID-GAP or HsCYK-4, functions as a GAP and exhibits strong activity towards Rac 1 and Cdc42. Highly expressed in thymus, placenta and tests with lower levels in spleen and peripheral blood lymphocytes, Rac GAP1 contains one Rho-GAP domain and one phorbol-ester/DAG-type zinc finger. Rac GAP1 plays an essential role in cytokinesis, functioning as a scaffold protein as well as a GTpase regulator. During cytokinesis, Rac GAP1 is phosphorylated at multiple sites.

**CHROMOSOMAL LOCATION**

Genetic locus: RACGAP1 (human) mapping to 12q13.12; Racgap1 (mouse) mapping to 15 F1.

**SOURCE**

Rac GAP1 (B-7) is a mouse monoclonal antibody raised against amino acids 142-437 mapping within an internal region of Rac GAP1 of human origin.

**PRODUCT**

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

**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**

Rac GAP1 (B-7) is recommended for detection of Rac GAP1 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).

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

1) Western Blotting: use m-IgG HRP: sc-516102 or m-IgG 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-IgG HRP-BP-FITC: sc-516140 or m-IgG HRP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

**DATA**

Rac GAP1 (B-7): sc-166477 Western blot analysis of Rac GAP1 expression in K-562 (A), Jurkat (B) and H19-7/GF-IR (C) whole cell lysates.

Rac GAP1 (B-7) sc-166477 Immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoplasmic localization (A). Direct immunofluorescence staining of formalin-fixed Hep G2 cells showing cytoskeletal localization and GAPi-counterstain. Rac GAP1 (B-7) antibody was conjugated to CruzFluor® 488 succinimidyl ester: sc-362617 (B).

**SELECT PRODUCT CITATIONS**


**PROTOCOLS**

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