**pan Rac (G-2): sc-514583**

**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. GTase-activating proteins (GAPs) accelerate the intrinsic rate of GTP hydrolysis of Ras-related proteins, resulting in downregulation of their active form. Two proteins in this family, Rac 1 and Rac 2, are 92% identical and share GTP binding and GTP hydrolysis motifs with other members of the Ras superfamily. Rac 1 is expressed in a large number of different cell types. Rac 2 is primarily expressed only in myeloid cells and has been reported to be a regulatory component of the human neutrophil NADPH oxidase.

**REFERENCES**


**SOURCE**

pan Rac (G-2) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 163-183 near the C-terminus of Rac 1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2b kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

pan Rac (G-2) is available conjugated to agarose (sc-514583 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-514583 HRP), 200 µg/ml, for WB, (HCP) and ELISA; to either phycoerythrin (sc-514583 PE), fluorescein (sc-514583 FITC), Alexa Fluor® 488 (sc-514583 AF488), Alexa Fluor® 546 (sc-514583 AF546), Alexa Fluor® 594 (sc-514583 AF594) or Alexa Fluor® 647 (sc-514583 AF647), 200 µg/ml, for WB (RGB), IF, (HCP) and FCM; and to either Alexa Fluor® 880 (sc-514583 AF880) or Alexa Fluor® 790 (sc-514583 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

Blocking peptide available for competition studies, sc-514583 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stablizer protein).

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**APPLICATIONS**

pan Rac (G-2) is recommended for detection of Rac 1, Rac 2 and Rac 3 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), 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).

Molecular Weight of pan Rac: 22 kDa.

Positive Controls: Rac 1 (h): 293T Lysate: sc-116394, Jurkat whole cell lysate: sc-2204 or HL-60 whole cell lysate: sc-2209.

**RECOMMENDED SUPPORT REAGENTS**

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG BP-HRP: sc-516102 or m-IgG BP-HRP (Cruz Marker): sc-516102-CM (dilution range 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-56214 and Western Blotting Luminal 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 BP-FITC: sc-516140 or m-IgG BP-PE: sc-516141 (dilution range 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgG BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organol/Limonene Mount: sc-45087.

**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.