RAC-GTP

Anti-Rac1GTP Mouse Monoclonal Antibody

Cat. #: 26903

Size: 30 µL

Gene Symbol: RAC1

Description: Anti-Rac1-GTP Mouse Monoclonal Antibody

Background: Small GTPases are a super-family of cellular signaling regulators. Rac belongs to the Rho sub-family of GTPases that regulate cell motility, cell division, and gene transcription. GTP binding increases the activity of Rac, and the hydrolysis of GTP to GDP renders it inactive. GTP hydrolysis is aided by GTPase activating proteins (GAPs), while exchange of GDP for GTP is facilitated by guanine nucleotide exchange factors (GEFs).

Immunogen: Recombinant full length protein of active Rac1

Applications: IP, IHC and IF **(Not applicable for WB since SDS denatures the RacGTPase)**

Published Applications: IF, IHC Click for Details - Part 01 Part 02

Recommended Dilutions:

IP: 1 µg for 1~2 mg total cellular proteins

IHC, IF: 1:50-1:250

Concentration: 1 mg/ml

Host Species: Mouse

Format: Liquid

Clonality: Monoclonal

Isotype: IgM

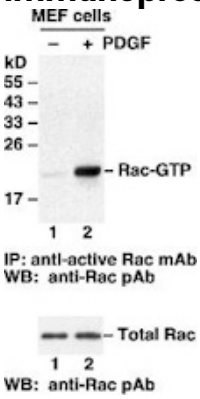
Purity: Purified from ascites

Constituents: PBS (without Mg^{2+} and Ca^{2+}), pH 7.4, 150 mM NaCl, 50% glycerol

Species Reactivity: Anti-Rac1-GTP monoclonal antibody recognizes active Rac1 from vertebrates.

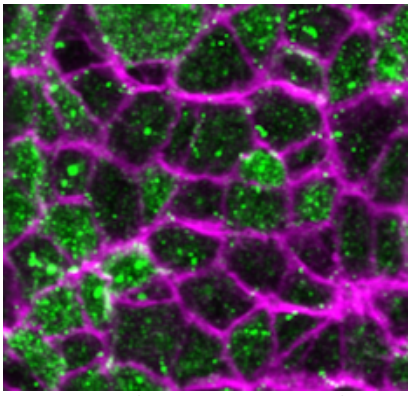
Storage Conditions: Store at -20°C. Avoid repeated freezing and thawing

Immunoprecipitation/Western blot:

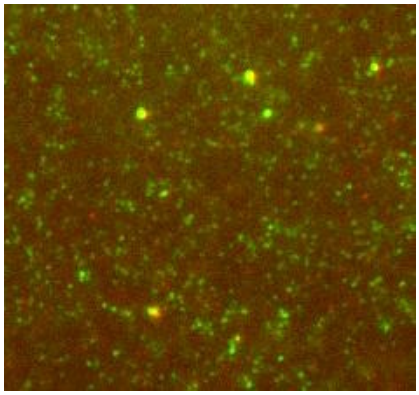


Rac Activation Assay.

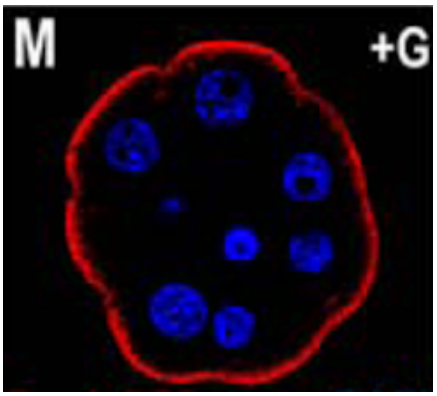
MEF cells were treated with (lane 2) or without (lane 1) PDGF. Cell lysates were incubated with an anti-Rac-GTP monoclonal antibody (Cat # 26903) (top panel). Th precipitated active Rac was immunoblotted with an anti-Rac rabbit polyclonal antibody (Cat # 21003). The bottom panel shows the Western blot with anti-Rac of the cell lysates used (5% of that used in the top panel).



Immunofluorescence for the active Rac using Anti-Rac1-GTP Mouse Monoclonal Antibody [26903] on Mouse embryos at the 0- or 1-somite stages - F-actin (magenta) and GTP-Rac1 (green)



Immunofluorescence for the active Rac using Anti-Rac1-GTP Mouse Monoclonal Antibody [26903] shows Rac-GTP immunolabeling (green) in combination with cofilin (red) on brain tissue sections. The tissue sections were fixed with -20 °C methanol or 4% paraformaldehyde (fixation time 1 hr) and stained with antibody at 1:1000 in 0.1M Phosphate buffer with 0.3% Triton X, and 4% BSA for 24h at room temperature. Secondary antibodies were anti-mouse AlexaFluor488 and anti-rabbit AlexaFluor594 at 1:1000.



Immunofluorescence for the Rac1-GTP using Anti-Rac1-GTP Mouse Monoclonal Antibody [26903] on the polar cells of mouse embryo. Rac1-GTP staining (Red) is observed only on the apical surface of the polar cells