

Datasheet for ABIN968089

anti-RAC1 antibody**3** Images**5** Publications[Go to Product page](#)

Overview

Quantity:	150 µg
Target:	RAC1
Reactivity:	Human, Mouse, Rat, Dog, Chicken
Host:	Mouse
Clonality:	Monoclonal
Conjugate:	This RAC1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunohistochemistry (IHC), Immunofluorescence (IF), Immunoprecipitation (IP)

Product Details

Immunogen:	Human Rac1 Protein
Clone:	102-Rac1
Isotype:	IgG2b kappa
Cross-Reactivity:	Rat (Rattus), Chicken, Dog (Canine), Mouse (Murine)
Characteristics:	<ol style="list-style-type: none">1. Since applications vary, each investigator should titrate the reagent to obtain optimal results.2. Please refer to us for technical protocols.3. Caution: Sodium azide yields highly toxic hydrazoic acid under acidic conditions. Dilute azide compounds in running water before discarding to avoid accumulation of potentially explosive deposits in plumbing.4. Source of all serum proteins is from USDA inspected abattoirs located in the United States.
Purification:	The monoclonal antibody was purified from tissue culture supernatant or ascites by affinity

Product Details

chromatography.

Target Details

Target:	RAC1
Abstract:	RAC1 Products
Background:	<p>Rac1 is a member of the expanding family of Ras-related GTPase proteins. These small proteins have the ability to switch between two different conformational states: the active (GTP-bound) and the inactive (GDP-bound). The GTPase activity is increased by specific activator proteins named GAPs. Rac1, like many of its relatives, contains the consensus sequence Cys-X-X-X-COOH, which localizes it to the plasma membrane. Growth factor stimulation of cells results in a dramatic reorganization of the actin filament network and membrane ruffling, processes for which Rac1 is essential. Constitutive expression of Rac1 leads to cell transformation. This process is mediated by the Rac1-dependent activation of the p65PAK serine/threonine kinase. In addition, IQGAP1 has been identified as a GTPase activating protein specific for Rac1. Due to sequence homology among various small GTPase family members, potential cross-reactivity could be observed with this antibody. This antibody is routinely tested by western blot analysis.</p>
Molecular Weight:	21 kDa
Pathways:	WNT Signaling , Regulation of Actin Filament Polymerization , Cell-Cell Junction Organization , Thromboxane A2 Receptor Signaling , VEGF Signaling

Application Details

Comment:	Related Products: ABIN967389 , ABIN968545
Restrictions:	For Research Use only

Handling

Format:	Liquid
Concentration:	250 µg/mL
Buffer:	Aqueous buffered solution containing BSA, glycerol, and ≤0.09 % sodium azide.
Preservative:	Sodium azide
Precaution of Use:	This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which

Handling

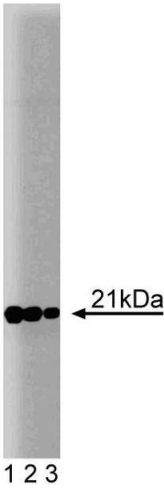
should be handled by trained staff only.

Storage: -20 °C

Storage Comment: Store undiluted at -20° C.

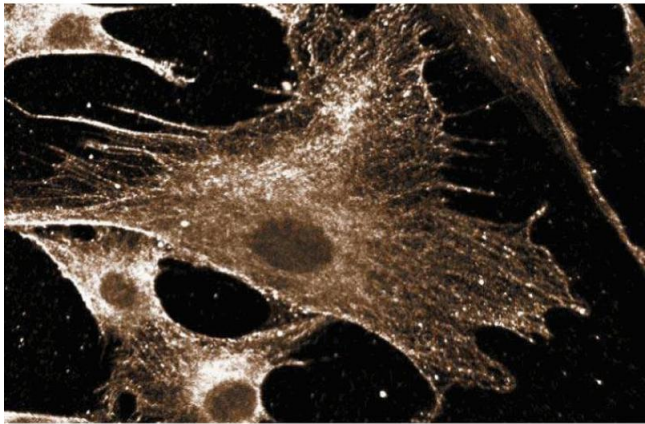
Publications

- Product cited in:
- Habas, Dawid, He: "Coactivation of Rac and Rho by Wnt/Frizzled signaling is required for vertebrate gastrulation." in: **Genes & development**, Vol. 17, Issue 2, pp. 295-309, (2003) ([PubMed](#)).
- Doye, Mettouchi, Bossis, Clément, Buisson-Touati, Flatau, Gagnoux, Piechaczyk, Boquet, Lemichez: "CNF1 exploits the ubiquitin-proteasome machinery to restrict Rho GTPase activation for bacterial host cell invasion." in: **Cell**, Vol. 111, Issue 4, pp. 553-64, (2002) ([PubMed](#)).
- Innocenti, Tenca, Frittoli, Faretta, Tocchetti, Di Fiore, Scita: "Mechanisms through which Sos-1 coordinates the activation of Ras and Rac." in: **The Journal of cell biology**, Vol. 156, Issue 1, pp. 125-36, (2002) ([PubMed](#)).
- Nobes, Hall: "Rho, rac, and cdc42 GTPases regulate the assembly of multimolecular focal complexes associated with actin stress fibers, lamellipodia, and filopodia." in: **Cell**, Vol. 81, Issue 1, pp. 53-62, (1995) ([PubMed](#)).
- Didsbury, Weber, Bokoch, Evans, Snyderman: "rac, a novel ras-related family of proteins that are botulinum toxin substrates." in: **The Journal of biological chemistry**, Vol. 264, Issue 28, pp. 16378-82, (1989) ([PubMed](#)).



Western Blotting

Image 1. Western blot analysis of Rac1 on a rat cerebrum lysate. Lane 1: 1:1000, lane 2: 1:2000, lane 3: 1:4000 dilution of the anti-Rac1 antibody.



Immunofluorescence

Image 2. Immunofluorescent staining of human fibroblast cells.

Image 3.

