

Datasheet for ABIN3043366
anti-RAC1 antibody (C-Term)



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Overview

Quantity:	100 µg
Target:	RAC1
Binding Specificity:	AA 169-189, C-Term
Reactivity:	Human, Mouse, Rat
Host:	Rabbit
Clonality:	Polyclonal
Conjugate:	This RAC1 antibody is un-conjugated
Application:	Western Blotting (WB), Immunofluorescence (IF), Immunocytochemistry (ICC)

Product Details

Purpose:	Anti-Rac1 Antibody Picoband®
Immunogen:	A synthetic peptide corresponding to a sequence at the C-terminus of human Rac1, identical to the related mouse and rat sequences.
Sequence:	FDEAIRAVLC PPPVKRKRK C
Isotype:	IgG
Cross-Reactivity (Details):	No cross-reactivity with other proteins
Characteristics:	Anti-Rac1 Antibody Picoband® (ABIN3043366). Tested in Flow Cytometry, IF, IHC, ICC, WB applications. This antibody reacts with Human, Mouse, Rat. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.

Product Details

Purification: Immunogen affinity purified.

Target Details

Target: RAC1

Abstract: [RAC1 Products](#)

Background: Synonyms: Ras-related C3 botulinum toxin substrate 1, Cell migration-inducing gene 5 protein, Ras-like protein TC25, p21-Rac1, RAC1, TC25, MIG5,
Tissue Specificity: Isoform B is predominantly identified in skin and epithelial tissues from the intestinal tract. Its expression is elevated in colorectal tumors at various stages of neoplastic progression, as compared to their respective adjacent tissues.
Background: Rac1, also known as Ras-related C3 botulinum toxin substrate 1, is a protein found in human cells. It is encoded by the RAC1 gene. This gene can produce a variety of alternatively spliced versions of the Rac1 protein, which appear to carry out different functions. This gene is a GTPase which belongs to the RAS superfamily of small GTP-binding proteins. Members of this superfamily appear to regulate a diverse array of cellular events, including the control of cell growth, cytoskeletal reorganization, and the activation of protein kinases. Two transcript variants encoding different isoforms have been found for this gene.
Sequence Similarities: Belongs to the small GTPase superfamily. Rho family.

Molecular Weight: 21 kDa

Gene ID: 5879

UniProt: [P63000](#)

Pathways: [WNT Signaling](#), [Regulation of Actin Filament Polymerization](#), [Cell-Cell Junction Organization](#), [Thromboxane A2 Receptor Signaling](#), [VEGF Signaling](#)

Application Details

Application Notes: Western blot, 0.1-0.5 µg/mL, Human, Mouse, Rat
Immunohistochemistry, 2-5 µg/mL, Human
Immunocytochemistry/Immunofluorescence, 5 µg/mL, Human
Flow Cytometry(Fixed), 1-3 µg/1x10⁶ cells, Human
1. Didsbury J, Weber RF, Bokoch GM, Evans T, Snyderman R (October 1989). "rac, a novel ras-related family of proteins that are botulinum toxin substrates". J. Biol. Chem. 264 (28): 16378-82. 2. Jordan P, Brazão R, Boavida MG, Gespach C, Chastre E (November 1999). "Cloning of a novel human Rac1b splice variant with increased expression in colorectal tumors". Oncogene 18

Application Details

(48): 6835-9. 3. Zhou C, Licciulli S, Avila JL, Cho M, Troutman S, Jiang P, Kossenkova AV, Showe LC, Liu Q, Vachani A, Albelda SM, Kissil JL (February 2013). "The Rac1 splice form Rac1b promotes K-ras-induced lung tumorigenesis". *Oncogene* 32 (7): 903-9.

Comment: Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na₂HPO₄.

Handling Advice: Avoid repeated freezing and thawing.

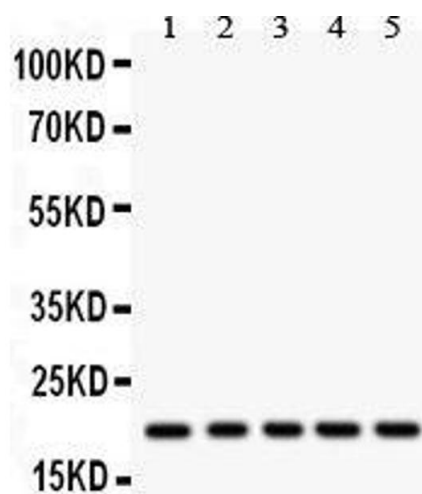
Storage: 4 °C, -20 °C

Storage Comment: Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.

Publications

Product cited in: Han, Zhuang, Chen, Zhu, Cai, Lu et al.: "Novel derivative of Paeonol, Paeononilic acid sodium, alleviates behavioral damage and hippocampal dendritic injury in Alzheimer's disease concurrent with cofilin1/phosphorylated-cofilin1 and ..." in: **PLoS ONE**, Vol. 12, Issue 9, pp. e0185102, (2017) ([PubMed](#)).

Shen, Yang, Yao, Sun, Chen, Mo, Shi, Chen, Liu: "Gadolinium promoted proliferation in mouse embryo fibroblast NIH3T3 cells through Rac and PI3K/Akt signaling pathways." in: **Biomaterials : an international journal on the role of metal ions in biology, biochemistry, and medicine**, Vol. 27, Issue 4, pp. 753-62, (2015) ([PubMed](#)).



Western Blotting

Image 1. Anti- RAC1 Picoband antibody, Western blotting
All lanes: Anti RAC1 at 0.5ug/ml Lane 1: Rat Pancreas Tissue Lysate at 50ug Lane 2: Mouse Intestine Tissue Lysate at 50ug Lane 3: HELA Whole Cell Lysate at 40ug Lane 4: COLO320 Whole Cell Lysate at 40ug Lane 5: SGC Whole Cell Lysate at 40ug Predicted bind size: 21KD
Observed bind size: 21KD