

## Basic Information

|                           |  |            |
|---------------------------|--|------------|
| <b>Product Name</b>       | Anti-RAC1 Antibody   |            |
| <b>Gene Name</b>          | RAC1   |            |
| <b>Source</b>             | Rabbit   |            |
| <b>Clonality</b>          | Polyclonal   |            |
| <b>Isotype</b>            | IgG  |            |
| <b>Species Reactivity</b> | human, mouse, rat  |            |
| <b>Tested Application</b> | WB, IHC, ICC/IF, FCM   |            |
| <b>Contents</b>           | 500 ug/ml antibody with PBS, 0.02% NaN <sub>3</sub> , 1 mg/ml BSA and 50% glycerol.  |            |
| <b>Immunogen</b>          | A synthetic peptide corresponding to a sequence at the C-terminus of human Rac1 identical to the related mouse and rat sequences.  |            |
| <b>Concentration</b>      | 500 ug/ml  |            |
| <b>Purification</b>       | Immunogen affinity purified.   |            |
| <b>Observed MW</b>        | 21 kDa   |            |
| <b>Dilution Ratios</b>    | Western blot (WB):   | 1:500-2000 |
|                           | Immunohistochemistry (IHC):  | 1:50-400   |
|                           | Immunocytochemistry/Immunofluorescence (ICC/IF):   | 1:50-400   |
|                           | Flow Cytometry (Fixed):  | 1:50-200   |
|                           | (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user. |            |

## Storage

12 months from date of receipt, -20°C as supplied.

## Background Information

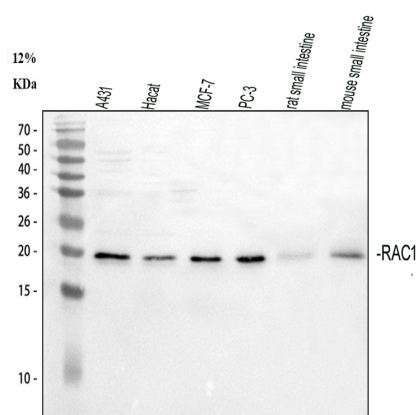
Rac1, also known as Ras-related C3 botulinum toxin substrate 1, is a protein found in human cells. It is encoded by the RAC1 gene. This gene can produce a variety of alternatively spliced versions of the Rac1 protein, which appear to carry out different functions. This gene is a GTPase which belongs 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.

## Reference

Anti-RAC1 Antibody被引用在5文献中。

## Selected Validation Data



Western blot analysis of RAC1 using anti-RAC1 antibody (PB0425). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human A431 whole cell lysates,

Lane 2: human Hacat whole cell lysates,

Lane 3: human MCF-7 whole cell lysates,

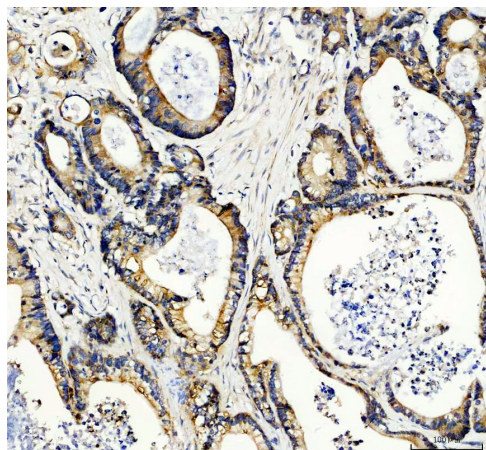
Lane 4: human PC-3 whole cell lysates,

Lane 5: rat small intestine tissue lysates,

Lane 6: mouse small intestine tissue lysates.

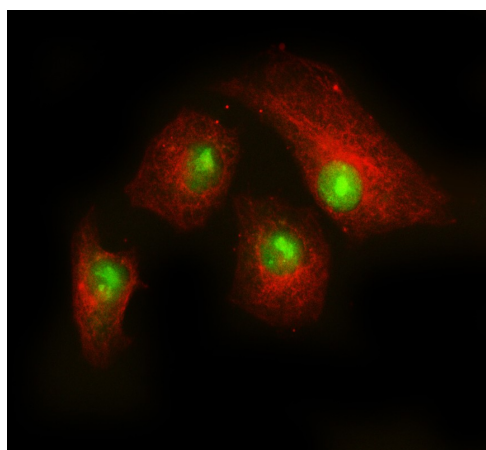
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-RAC1 antigen affinity purified polyclonal antibody (PB0425) at a dilution of 1:1000 and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for RAC1 at approximately 21 kDa. The expected band size for RAC1 is at 21 kDa.



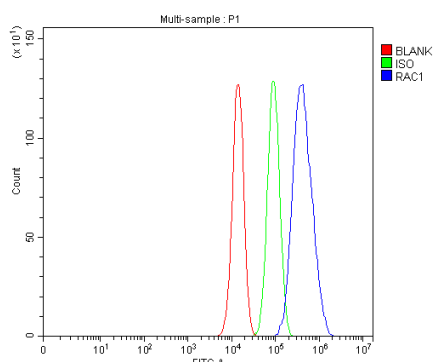
IHC analysis of RAC1 using anti-RAC1 antibody (PB0425).

RAC1 was detected in a paraffin-embedded section of human colon cancer tissue. The tissue section was incubated with rabbit anti-RAC1 Antibody (PB0425) at a dilution of 1:200 and developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of RAC1 using anti-RAC1 antibody (PB0425) and anti-Beta Tubulin antibody (M01857-3).

RAC1 was detected in an immunocytochemical section of A549 cells. The section was incubated with rabbit anti-RAC1 Antibody (PB0425) at a dilution of 1:100. Fluoro488-conjugated Anti-rabbit IgG Secondary Antibody (green)(Catalog#BA1127) and Fluoro594-conjugated Anti-mouse IgG Secondary Antibody (red)(Catalog#BA1141) were used as secondary antibody.



Flow Cytometry analysis of U87 cells using anti-RAC1 antibody (PB0425).

Overlay histogram showing U87 cells stained with PB0425 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-RAC1 Antibody (PB0425) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.