

Anti-Rac1 antibody ab155938

★★★★☆ [2 Abreviews](#) [23 References](#) [画像数 10](#)

製品の概要

製品名	Anti-Rac1 antibody
製品の詳細	Rabbit polyclonal to Rac1
由来種	Rabbit
特異性	There is high alignment of the immunogen to RAC2 and RAC3 proteins and so it is possible the antibody will also detect RAC2 and RAC3 as well as RAC1. Although any cross reactivity has not been specifically tested in the laboratory. The sizes of these proteins are approximately the same.
アプリケーション	適用あり: ICC, WB, IHC-P
種交差性	交差種: Mouse, Human
免疫原	Recombinant full length protein corresponding to Human Rac1. Database link: P63000
ポジティブ・コントロール	WB: HT-29, SW480, PC-3, LNCaP, HeLa, A431, Jurkat, 3T3L1 and 293T cell lysate. ICC: HeLa cells. IHC: Human breast, prostate and tonsil tissues.
特記事項	<p>The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing.</p> <p>If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As</p>

製品の特性

製品の状態	Liquid
保存方法	Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid freeze / thaw cycles.
バッファー	Preservative: 0.05% Sodium azide Constituents: 0.1% BSA, 30% Glycerol, 69% PBS
精製度	Protein A purified
ポリモノ	ポリクローナル
アイソタイプ	IgG

アプリケーション

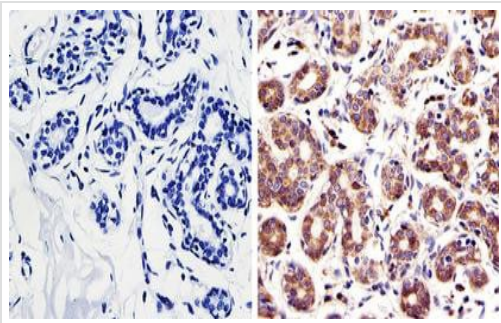
The Abpromise guarantee **Abpromise保証は、次のテスト済みアプリケーションにおけるab155938の使用に適用されず**
アプリケーションノートには、推奨の開始希釈率がありますが、適切な希釈率につきましてはご検討ください。

アプリケーション	Abreviews	特記事項
ICC		1/20 - 1/100.
WB		1/1000. Predicted molecular weight: 21 kDa.
IHC-P		1/20 - 1/50. Perform heat mediated antigen retrieval with citrate buffer pH 6 before commencing with IHC staining protocol. Retrieve antigen using 10mM sodium citrate followed by microwave treatment for 8-15 minutes.

ターゲット情報

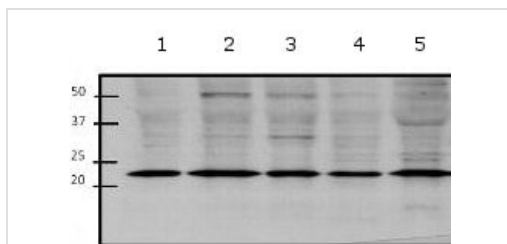
機能	Plasma membrane-associated small GTPase which cycles between active GTP-bound and inactive GDP-bound states. In its active state, binds to a variety of effector proteins to regulate cellular responses such as secretory processes, phagocytosis of apoptotic cells, epithelial cell polarization and growth-factor induced formation of membrane ruffles. Rac1 p21/rho GDI heterodimer is the active component of the cytosolic factor sigma 1, which is involved in stimulation of the NADPH oxidase activity in macrophages (By similarity). Essential for the SPATA13-mediated regulation of cell migration and adhesion assembly and disassembly. Isoform B has an accelerated GEF-independent GDP/GTP exchange and an impaired GTP hydrolysis, which is restored partially by GTPase-activating proteins. It is able to bind to the GTPase-binding domain of PAK but not full-length PAK in a GTP-dependent manner, suggesting that the insertion does not completely abolish effector interaction.
組織特異性	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.
配列類似性	Belongs to the small GTPase superfamily. Rho family.
ドメイン	The effector region mediates interaction with DEF6.
翻訳後修飾	AMPylation at Tyr-32 and Thr-35 are mediated by bacterial enzymes in case of infection by H.somnus and V.parahaemolyticus, respectively. AMPylation occurs in the effector region and leads to inactivation of the GTPase activity by preventing the interaction with downstream effectors, thereby inhibiting actin assembly in infected cells. It is unclear whether some human enzyme mediates AMPylation; FICD has such ability in vitro but additional experiments remain to be done to confirm results in vivo.
細胞内局在	Cell membrane. Melanosome. Inner surface of plasma membrane possibly with attachment requiring prenylation of the C-terminal cysteine (By similarity). Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
製品の状態	Rac1 has high sequence homology with other Rac proteins. Therefore some antibodies may show cross-reactivity.

画像



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rac1 antibody (ab155938)

Immunohistochemistry analysis of Human breast tissue labeling Rac1 with ab155938 at 1/200.



Western blot - Anti-Rac1 antibody (ab155938)

All lanes : Anti-Rac1 antibody (ab155938) at 1/1000 dilution

Lane 1 : HeLa cell lysate

Lane 2 : 293T cell lysate

Lane 3 : A431 cell lysate

Lane 4 : Jurkat cell lysate

Lane 5 : 3T3L1 cell lysate

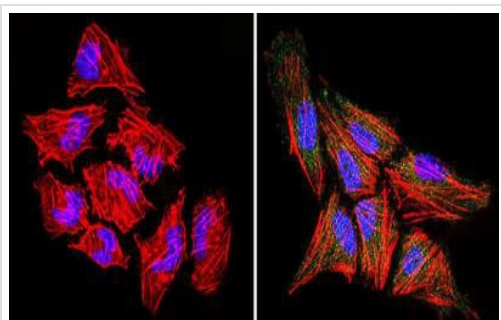
Lysates/proteins at 50 µg per lane.

Secondary

All lanes : Goat anti-rabbit-HRP secondary at 1/15000 dilution

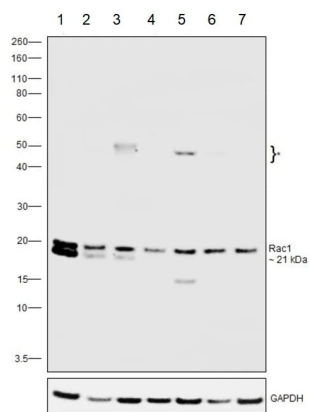
Predicted band size: 21 kDa

4-20% Tris-HCl polyacrylamide gel.



Immunocytochemistry - Anti-Rac1 antibody (ab155938)

Immunocytochemistry analysis of Formalin-fixed permeabilized HeLa cells labeling Rac1 with ab155938 at 1/100 in green, F-actin was stain with flurescent phalloidin in red and the nucleus with DAPI in blue.



Western blot - Anti-Rac1 antibody (ab155938)

All lanes : Anti-Rac1 antibody (ab155938) at 1/1000 dilution

Lane 1 : HeLa (Human cervix adenocarcinoma epithelial cell) whole cell lysate

Lane 2 : HT-29 (Human colorectal adenocarcinoma cell line) whole cell lysate

Lane 3 : SW480 (Human colorectal adenocarcinoma cell line) whole cell lysate

Lane 4 : PC-3 (Human prostate adenocarcinoma cell line) whole cell lysate

Lane 5 : LNCaP (Human prostate cancer cell line) whole cell lysate

Lane 6 : A-431 (Human epidermoid carcinoma cell line) whole cell lysate

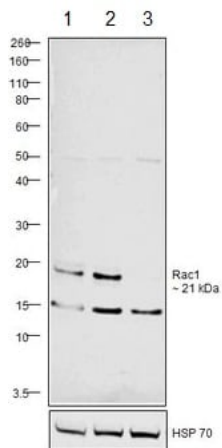
Lane 7 : NIH/3T3 (Mouse embryonic fibroblast cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 21 kDa

Observed band size: 21 kDa

Western blot was performed using ab155938 and a 21kDa band corresponding to RAC1 was observed along with uncharacterized band (*) across cell lines tested. Membrane enriched extracts (30 µg lysate) of cells were electrophoresed using NuPAGE™ 4-12% Bis-Tris Protein Gel. Resolved proteins were then transferred onto a Nitrocellulose membrane by iBlot® 2 Dry Blotting System. The blot was probed with the primary antibody (1:1000 dilution) and detected by chemiluminescence with Goat anti-Rabbit IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP using the iBright FL 1000. Chemiluminescent detection was performed using Novex® ECL Chemiluminescent Substrate Reagent Kit.



Western blot - Anti-Rac1 antibody (ab155938)

All lanes : Anti-Rac1 antibody (ab155938) at 1/1000 dilution

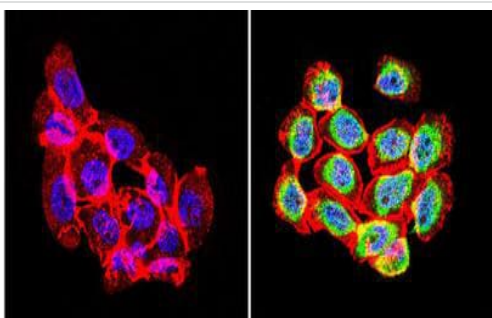
Lane 1 : Untransfected HT-29 (Human colorectal adenocarcinoma cell line) whole cell lysate

Lane 2 : HT-29 (transfected with non-targeting scrambled siRNAs) whole cell lysate

Lane 3 : HT-29 (transfected with RAC1 siRNAs) whole cell lysate

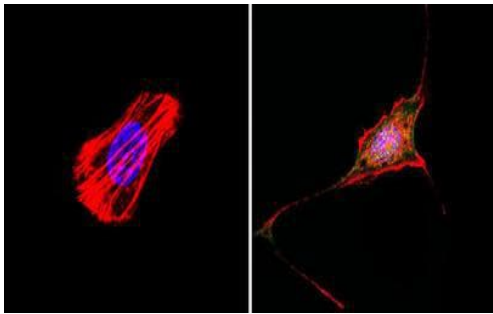
Predicted band size: 21 kDa

Knockdown of RAC1 was achieved by transfecting HT-29 with RAC1 specific siRNAs. Western blot analysis was performed using Membrane enriched extracts from cells. The blot was probed with ab155938 (1:1000 dilution) and Goat anti-Rabbit IgG (H+L) Superclonal™ Recombinant Secondary Antibody, HRP 1:4000 dilution.



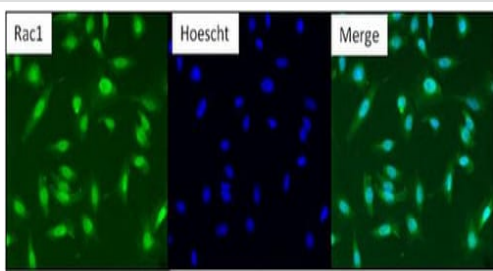
Immunocytochemistry - Anti-Rac1 antibody (ab155938)

Immunocytochemistry analysis of Formalin-fixed permeabilized Human cells labeling Rac1 with ab155938 at 1/20 in green, F-actin was stain with flurescent phalloidin in red and the nucleus with DAPI in blue.



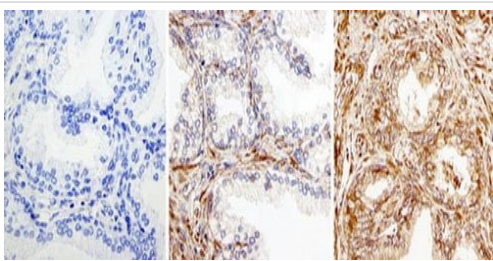
Immunocytochemistry - Anti-Rac1 antibody
(ab155938)

Immunocytochemistry analysis of Formalin-fixed permeabilized Murine cells labeling Rac1 with ab155938 at 1/20 in green, F-actin was stain with flurescent phalloidin in red and the nucleus with DAPI in blue.



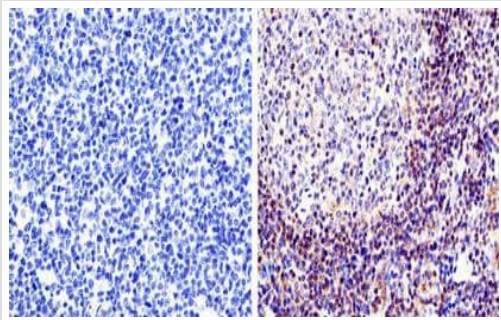
Immunocytochemistry - Anti-Rac1 antibody
(ab155938)

Immunocytochemistry analysis of Formalin-fixed untreated HeLa cells labeling Rac1 with ab155938 at 1/100 in green, and the nucleus with Hoechst in blue.



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rac1 antibody
(ab155938)

Immunohistochemistry analysis of Human prostate tissue labeling Rac1 with ab155938 at 1/50.



Immunohistochemistry analysis of Human tonsil tissue labeling Rac1 with ab155938 at 1/50.

Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Rac1 antibody (ab155938)

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