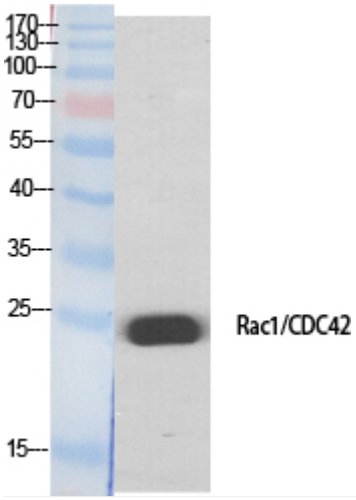
Rac1/2/3/CDC42 Polyclonal Antibody

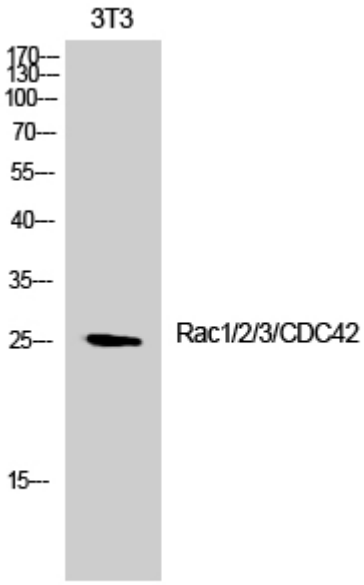
Catalog No	BYab-31832
Isotype	IgG
Reactivity	Human;Mouse;Rat
Applications	WB;IHC;IF;ELISA
Gene Name	RAC3
Protein Name	Ras-related C3 botulinum toxin substrate 3
Immunogen	The antiserum was produced against synthesized peptide derived from human Rac1/CDC42. AA range:38-87
Specificity	Rac1/2/3/CDC42 Polyclonal Antibody detects endogenous levels of Rac1/2/3/CDC42 protein.
Formulation	Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.
Source	Polyclonal, Rabbit,IgG
Purification	The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen.
Dilution	WB: 1/500 - 1/2000. IHC: 1/100 - 1/300. ELISA: 1/20000.. IF 1:50-200
Concentration	1 mg/ml
Purity	≥90%
Storage Stability	-20°C/1 year
Synonyms	RAC1; TC25; MIG5; Ras-related C3 botulinum toxin substrate 1; Cell migration-inducing gene 5 protein; Ras-like protein TC25; p21-Rac1; RAC2; Ras-related C3 botulinum toxin substrate 2; GX; Small G protein; p21-Rac2; RAC3; Ras-related C3 bot
Observed Band	26kD
Cell Pathway	Cell membrane ; Lipid-anchor ; Cytoplasmic side . Melanosome . Cytoplasm . Cell projection, lamellipodium . Cell projection, dendrite . Cell junction, synapse . Nucleus . Inner surface of plasma membrane possibly with attachment requiring prenylation of the C-terminal cysteine (PubMed:1903399). Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065). Found in the ruffled border (a late endosomal-like compartment in the plasma membrane) of bone-resorbing osteoclasts. Localizes to the lamellipodium in a SH3RF1-dependent manner (By similarity). In macrophages, cytoplasmic location increases upon CSF1 stimulation (By similarity). Activation by GTP-binding promotes nuclear localization (PubMed:12551911). .

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.
Function	domain:The effector region mediates interaction with DEF6.,enzyme regulation:Regulated by guanine nucleotide exchange factors (GEFs) which promote the exchange of bound GDP for free GTP, GTPase activating proteins (GAPs) which increase the GTP hydrolysis activity, and GDP dissociation inhibitors which inhibit the dissociation of the nucleotide from the GTPase.,function: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.,function: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 regulat
Background	The protein encoded by 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. [provided by RefSeq, Mar 2009],
matters needing attention	Avoid repeated freezing and thawing!
Usage suggestions	This product can be used in immunological reaction related experiments. For more information, please consult technical personnel.

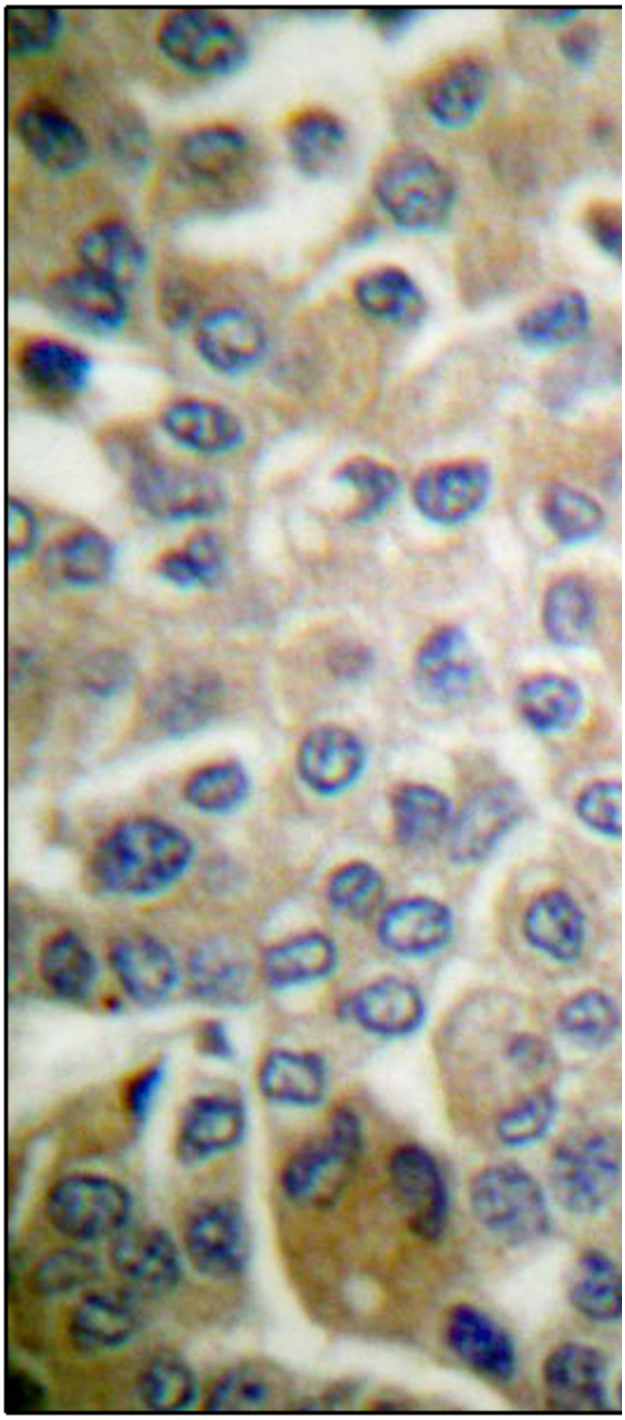
Products Images

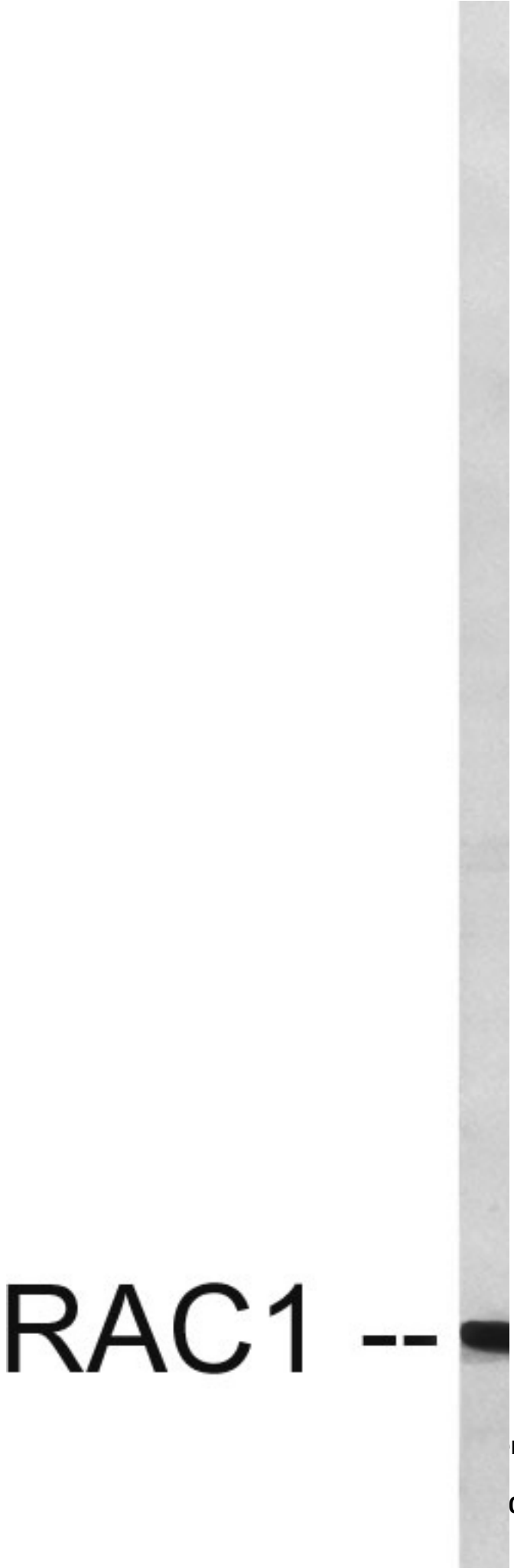


Western Blot analysis of various cells using Rac1/2/3/CDC42 Polyclonal Antibody



Western Blot analysis of 3T3 cells using Rac1/2/3/CDC42 Polyclonal Antibody



Immunohistochemistry analysis of paraffin-embedded human breast carcinoma tissue, using Rac1/CDC42 Antibody. The picture on the right is blocked with the synthesized peptide.

Western blot analysis of lysates from NIH/3T3 cells, treated with EGF 200ng/ml 30', using Rac1/CDC42 Antibody. The lane on the right is blocked with the synthesized peptide.