

# Rap1 polyclonal antibody

The Ras superfamily of small guanosine triphosphatases (GTPases) is traditionally subdivided into five families: Ras, Rho, Rab, Ran, and Arf. Rap1/Krev1 is a member of the Ras family of low molecular weight GTP-binding proteins<sup>1</sup>. Ras-like GTPases are ubiquitously expressed, evolutionarily conserved molecular switches that couple extracellular signals to various cellular responses. Rap1 is primarily found at the cytosolic side of intracellular membranes and has two isoforms: Rap1a and 1b2. Both isoforms have a molecular mass of 21 kDa and are isoprenylated at the carboxyl-terminal and phosphorylated by the cAMP-dependent protein kinase A (PKA)<sup>3</sup>. Rap1 cycles between a GTP-bound active form and a GDP-bound inactive form that is mediated by GTPase activating protein (GAP) and GDP dissociation stimulator (GDS)<sup>4,5</sup>. Activation occurs by a variety of extracellular stimuli through several conserved guanine nucleotide exchange factors (GEFs) and GTPase activating proteins (GAPs). Rap1 is proposed to regulate Ras mediated signaling and may also be involved in the regulation of integrin-mediated cell adhesion, although the mechanism of regulation is not known. Overexpression of Rap reverses the transformed phenotype induced by Ras, possibly by competing with Ras for interaction with Ras-GAP. Rap has been shown to participate in MAP kinase cascade activated by growth factor and maintaining human T cell anergic state by blocking IL-2 expression.

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**Manuals, SDS & CofA**

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Western blot analysis of Rap1 pAb: Lane 1: Rat Brain Tissue Extract, Lane 2: Mouse Brain Tissue Extract.

## Handling & Storage

Handling	Avoid freeze/thaw cycles.
Long Term Storage	-20°C
Shipping	Blue Ice

**Regulatory Status** RUO - Research Use Only

## Product Details

Alternative Name	KREV1
Application	WB
Application Notes	Detects a band of ~25kDa by Western blot.
Formulation	Liquid. In PBS containing 50% glycerol and 0.09% sodium azide.
Host	Rabbit
Immunogen	Synthetic peptide corresponding to the sequence near the C-terminus of human, mouse and rat Rap1.
Purity Detail	Peptide affinity purified.
Recommendation Dilutions/Conditions	Western Blot (1:1,000, ECL) Suggested dilutions/conditions may not be available for all applications. Optimal conditions must be determined individually for each application.
Source	Purified from rabbit serum.
Species Reactivity	Bovine, Dog, Guinea pig, Human, Mouse, Rabbit, Rat
UniProt ID	P62834 (Rap1A), P61224 (Rap1B)

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