

RAP1A Rabbit pAb

Catalog # AP99772

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P62834
Other Accession	P62834
Reactivity	Human, Mouse
Predicted	Rat, Chicken, Horse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	20987
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human RAP1A
Epitope Specificity	101-184/184
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SIMILARITY	Belongs to the small GTPase superfamily. Ras family.
SUBUNIT	Found in a complex, at least composed of ITGB1BP1, KRIT1 and RAP1A. Interacts (active GTP-bound form preferentially) with KRIT1 (via C-terminus FERM domain); the interaction does not induce the opening conformation of KRIT1. In its GTP-bound form interacts with PLCE1 and RADIL. Interacts with SGSM1, SGSM2 and SGSM3. Interacts (via GTP-bound active form) with RAPGEF2 (via Ras-associating domain)
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	This gene encodes a member of the Ras family of small GTPases. The encoded protein undergoes a change in conformational state and activity, depending on whether it is bound to GTP or GDP. This protein is activated by several types of guanine nucleotide exchange factors (GEFs), and inactivated by two groups of GTPase-activating proteins (GAPs). The activation status of the encoded protein is therefore affected by the balance of intracellular levels of GEFs and GAPs. The encoded protein regulates signaling pathways that affect cell proliferation and adhesion, and may play a role in tumor malignancy. Pseudogenes of this gene have been defined on chromosomes 14 and 17. Alternative splicing results in multiple transcript variants. [provided by RefSeq, May 2014].

Additional Information

Gene ID	5906
Other Names	C21KG; G-22K; KREV-1; KREV1; RAP1; SMGP21; RAP-1A; rap 1A; RAP1A_HUMAN; RAP1A; GTP-binding protein smg p21A; Ras-related protein Krev-1; 3.6.5.2; RAP1A_MOUSE; RAP1A_RAT; RAP1A, member of RAS oncogene family

Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

Protein Information

Name	RAP1A
Synonyms	KREV1
Function	Counteracts the mitogenic function of Ras, at least partly because it can interact with Ras GAPs and RAF in a competitive manner. Together with ITGB1BP1, regulates KRIT1 localization to microtubules and membranes (PubMed: 17916086). Plays a role in nerve growth factor (NGF)-induced neurite outgrowth. Plays a role in the regulation of embryonic blood vessel formation. Involved in the establishment of basal endothelial barrier function. Facilitates the progressive accumulation of CDH1 at mature desmosome junctions via cAMP-dependent signaling and its interaction with PKP3 (PubMed: 25208567). May be involved in the regulation of the vascular endothelial growth factor receptor KDR expression at endothelial cell-cell junctions.
Cellular Location	Cell membrane; Lipid-anchor. Cytoplasm. Cytoplasm, perinuclear region. Cell junction. Early endosome. Note=Recruited from early endosome to late endosome compartment after nerve growth factor (NGF) stimulation Localized with RAPGEF2 at cell-cell junctions (By similarity) Colocalized with RAPGEF2 in the perinuclear region.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.