

RAP1A Antibody

Purified Mouse Monoclonal Antibody

Catalog # AO1705a

Product Information

Application	WB, FC, E
Primary Accession	P62834
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Clone Names	5F8G2
Isotype	IgG1
Calculated MW	20987
Description	The product of this gene belongs to the family of RAS-related proteins. These proteins share approximately 50% amino acid identity with the classical RAS proteins and have numerous structural features in common. The most striking difference between RAP proteins and RAS proteins resides in their 61st amino acid: glutamine in RAS is replaced by threonine in RAP proteins. The product of this gene counteracts the mitogenic function of RAS because it can interact with RAS GAPs and RAF in a competitive manner. Two transcript variants encoding the same protein have been identified for this gene.
Immunogen	Purified recombinant fragment of human RAP1A expressed in E. Coli.
Formulation	Purified antibody in PBS with 0.05% sodium azide

Additional Information

Gene ID	5906
Other Names	Ras-related protein Rap-1A, C21KG, G-22K, GTP-binding protein smg p21A, Ras-related protein Krev-1, RAP1A, KREV1
Dilution	WB~~1/500 - 1/2000 FC~~1/200 - 1/400 E~~1/10000
Storage	Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.
Precautions	RAP1A Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	RAP1A
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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.

References

Mol Biol Cell. 2009 Apr;20(7):1916-25. J Cell Sci. 2009 Aug 15;122(Pt 16):2996-3004.

Images

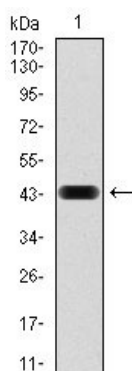


Figure 1: Western blot analysis using RAP1A mAb against human RAP1A (AA: 28-180) recombinant protein. (Expected MW is 21 kDa)

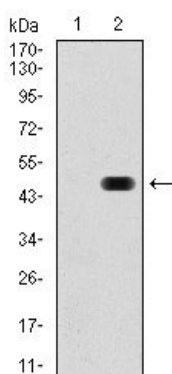
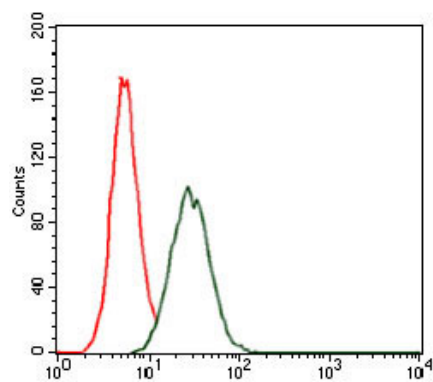


Figure 2: Western blot analysis using RAP1A mAb against HEK293 (1) and RAP1A (AA: 28-180)-hIgGFc transfected HEK293 (2) cell lysate.

Figure 3: Flow cytometric analysis of HeLa cells using RAP1A mouse mAb (green) and negative control (red).



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