10320 Camino Santa Fe, Suite G
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RAP1A Antibody
Purified Mouse Monoclonal Antibody
Catalog # AO1705a

Specification

RAP1A Antibody - Product Information

Application	**E, WB, FC**
Primary Accession	P62834
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1**
Calculated MW	**43.2kDa KDa**

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

RAP1A Antibody - 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
E~~1/10000
WB~~1/500 - 1/2000
FC~~1/200 - 1/400

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.

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RAP1A Antibody - Protein Information

Name RAP1A

Synonyms KREV1

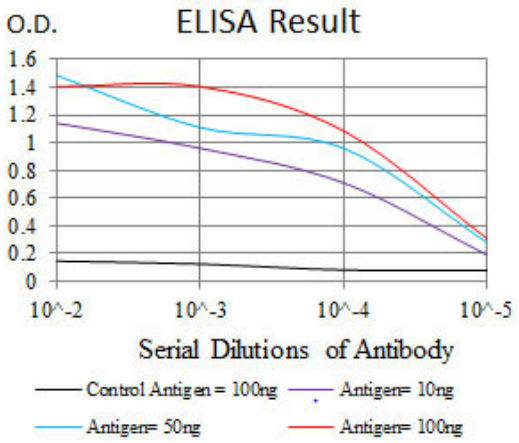
Function
Induces morphological reversion of a cell line transformed by a Ras oncogene. Counteracts the mitogenic function of Ras, at least partly because it can interact with Ras GAPs and RAF in a competitive manner. Together with ITGB1BP1, regulates KRIT1 localization to microtubules and membranes. 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. 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.

RAP1A Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture



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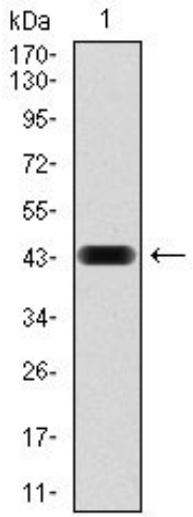


Figure 1: Western blot analysis using RAP1A mAb against human RAP1A (AA: 28-180) recombinant protein. (Expected MW is 21 kDa)

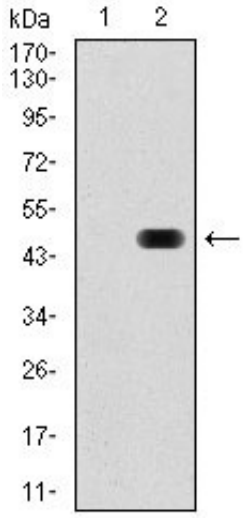


Figure 2: Western blot analysis using RAP1A mAb against HEK293 (1) and RAP1A (AA: 28-180)-hIgGFc transfected HEK293 (2) cell lysate.

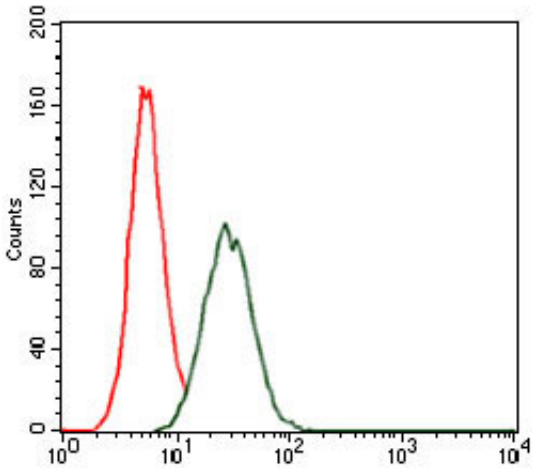


Figure 3: Flow cytometric analysis of HeLa cells using RAP1A mouse mAb (green) and negative control (red).

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RAP1A Antibody - References

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