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Goat Anti-ARHGEF4 Antibody
Peptide-affinity purified goat antibody
Catalog # AF1099a

Specification

Goat Anti-ARHGEF4 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q9NR80
Other Accession	NP_127462, 50649
Reactivity	**Human**
Host	**Goat**
Clonality	**Polyclonal**
Concentration	**100ug/200ul**
Isotype	**IgG**
Calculated MW	**79067**

Goat Anti-ARHGEF4 Antibody - Additional Information

Gene ID 50649

Other Names
Rho guanine nucleotide exchange factor 4, APC-stimulated guanine nucleotide exchange factor 1, Asef, Asef1, ARHGEF4, KIAA1112

Dilution
WB~~1:1000
E~~N/A

Format
0.5 mg IgG/ml in Tris saline (20mM Tris pH7.3, 150mM NaCl), 0.02% sodium azide, with 0.5% bovine serum albumin

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
Goat Anti-ARHGEF4 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Goat Anti-ARHGEF4 Antibody - Protein Information

Name ARHGEF4

Synonyms KIAA1112

Function

Acts as a guanine nucleotide exchange factor (GEF) for RHOA, RAC1 and CDC42 GTPases. Binding of APC may activate RAC1 GEF activity. The APC-ARHGEF4 complex seems to be involved in cell migration as well as in E-cadherin-mediated cell-cell adhesion. Required for MMP9 up- regulation via the JNK signaling pathway in colorectal tumor cells. Involved in tumor angiogenesis and may play a role in intestinal adenoma formation and tumor progression.

Cellular Location
[Isoform 3]: Cytoplasm. Cell projection, ruffle membrane; Peripheral membrane protein; Cytoplasmic side. Note=Associated with membrane ruffles

Tissue Location
Expressed at high levels in the brain, skeletal muscle and testis and at low levels in the kidney, lung, small intestine, ovary and prostate. Expression is aberrantly enhanced in most colorectal tumors.

Goat Anti-ARHGEF4 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

Goat Anti-ARHGEF4 Antibody - Images

AF1099a (2 µg/ml) staining of Human Brain lysate (35 µg protein in RIPA buffer). Primary incubation was 1 hour. Detected by chemiluminescence.

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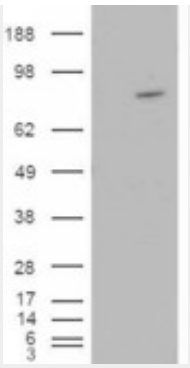

HEK293 overexpressing ARHGEF4 (RC215591) and probed with AF1099a (mock transfection in first lane), tested by Origene.

Goat Anti-ARHGEF4 Antibody - Background

Rho GTPases play a fundamental role in numerous cellular processes that are initiated by extracellular stimuli that work through G protein coupled receptors. The encoded protein may form complex with G proteins and stimulate Rho-dependent signals. This protein is similar to rat collybistin protein. Alternative splicing of this gene generates two transcript variants which encode different isoforms. Also there is possibility for the usage of multiple polyadenylation sites for this gene.

Goat Anti-ARHGEF4 Antibody - References

The RAC specific guanine nucleotide exchange factor Asef functions downstream from TEL-AML1 to promote leukaemic transformation. Lyons R, et al. Leuk Res, 2010 Jan. PMID 19628279.
Adenomatous polyposis coli and Asef function downstream of hepatocyte growth factor and phosphatidylinositol 3-kinase. Kawasaki Y, et al. J Biol Chem, 2009 Aug 14. PMID 19525225.
Phosphorylation and activation of the Rac1 and Cdc42 GEF Asef in A431 cells stimulated by EGF. Itoh RE, et al. J Cell Sci, 2008 Aug 15. PMID 18653540.
Htid-1, the human homolog of the Drosophila melanogaster l(2)tid tumor suppressor, defines a novel physiological role of APC. Kurzik-Dumke U, et al. Cell Signal, 2007 Sep. PMID 17588722.
Adenomatous polyposis coli (APC) is required for normal development of skin and thymus. Kuraguchi M, et al. PLoS Genet, 2006 Sep 15. PMID 17002498.