ARHGDIA Antibody – Rabbit

PRODUCT OVERVIEW

Product Name	ARHGDIA, Antibody
Full Product Name	ARHGDIA Antibody
Product Gene Name	anti-ARHGDIA antibody
Product Synonym Names	ARHGDIA; GDIA1; MGC117248; RHOGDI; RHOGDI-1
Isotype	IgG
Host	Rabbit
Species Reactivity	Human, Mouse, Rat
Purity/Purification	Affinity purification
Preparation and Storage	Store at-20 degree C or-80 degree C. Avoid freeze/thaw cycles.
Molecular Weight	28kDa
OMIM	601925
3D Structure	ModBase 3D Structure for P52565
Immunogen	Recombinant protein of human ARHGDIA
Storage Buffer	PBS with 0.02% sodium azide, 50% glycerol, pH7.3.
Product Categories/Family for anti-ARHGDIA antibody	Autophagy antibody; Cancer; Cardiovascular; Cell Biology; Epigenetics & Nuclear Signaling; Developmental Biologys; Immunology; Drug Discovery Products; Metabolism; Neuroscience; Signal Transduction; Stem Cells
ISO Certification	Manufactured in an ISO 9001:2015 Certified Laboratory.
Applications Tested/Suitable for anti-ARHGDIA antibody	Western Blot (WB), Immunohistochemistry (IHC)
Application Notes for anti-ARHGDIA antibody	WB: 1:500-1:2000 IHC: 1:50-1:200
Related Product Information for anti-ARHGDIA antibody	Rho family small GTPases, including Rho, Rac and cdc42, act as molecular switches, regulating processes such as cell migration, adhesion, proliferation and differentiation. They are activated by guanine nucleotide exchange factors (GEFs), which catalyze the exchange of bound GDP for GTP, and inhibited by GTPase activating proteins (GAPs), which catalyze the hydrolysis of GTP to GDP. A third level of regulation is provided by the stoichiometric binding of Rho GDP dissociation inhibitor (RhoGDI). RhoGDI affects Rho activity by inhibiting nucleotide exchange and membrane association, regulating activity and localization (Reviewed in 1, 2). The inhibitory and shuttling functions of RhoGDI have been uncoupled using mutant forms of RhoGDI (3). Phosphorylation of GDIs and/or GTPases can modulate their affinity for each other and, therefore, GTPase mediated signaling. PAK1 phosphorylation of RhoGDI at serines 101 and 174 causes release and activation of Rac1, but not RhoA (4).
Product References and Citations for anti-ARHGDIA antibody	1. DerMardirossian, C. and Bokoch, G. (2005) Trends Cell Biol. 15, 356-363. 2.Dovas, A. and Couchman, J.R. (2005) RhoGDI: multiple functions in the regulation of Rho familyGTPase activities. Biochem. J. 390, 1-9. 3. Dransart, E. et al. (2005) J. Biol. Chem. 280, 4674-4683. 4. DerMardirossian, C. et al. (2004) Mol. Cell 15, 117-127.
Other Notes	Small volumes of anti-ARHGDIA antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ARHGDIA purchase	MBS8500315 is an antibody targeting ARHGDIA. Also known as ARHGDIA Antibody. Reactive in Human, Mouse, Rat. Host: Rabbit.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ARHGDIA. It may not necessarily be applicable to this product.

NCBI GI #	297374782
NCBI GeneID	396
NCBI Accession #	NP_001172006.1
UniProt Primary Accession #	P52565
UniProt Secondary Accession #	Q6IBM5; A8MXW0; B2R5X1; B4DDD3; B4DUV9
UniProt Related Accession #	P52565
GenBank Nucleotide #	NM_001185077.2
NCBI Official Full Name	rho GDP-dissociation inhibitor 1 isoform a
NCBI Official Synonym Full Names	Rho GDP dissociation inhibitor alpha
NCBI Official Symbol	ARHGDIA
NCBI Official Synonym Symbols	GDIA1; NPHS8; RHOGDI; RHOGDI-1; HEL-S-47e
UniProt Protein Name	Rho GDP-dissociation inhibitor 1
UniProt Synonym Protein Names	Rho-GDI alpha
UniProt Gene Name	ARHGDIA
UniProt Synonym Gene Names	GDIA1; Rho GDI 1
NCBI Protein Information	rho GDP-dissociation inhibitor 1
NCBI Summary for ARHGDIA	This gene encodes a protein that plays a key role in the regulation of signaling through Rho GTPases. The encoded protein inhibits the disassociation of Rho family members from GDP (guanine diphosphate), thereby maintaining these factors in an inactive state. Activity of this protein is important in a variety of cellular processes, and expression of this gene may be altered in tumors. Mutations in this gene have been found in individuals with nephrotic syndrome, type 8. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jul 2014]
UniProt Comments for ARHGDIA	Controls Rho proteins homeostasis. Regulates the GDP/GTP exchange reaction of the Rho proteins by inhibiting the dissociation of GDP from them, and the subsequent binding of GTP to them. Retains Rho proteins such as CDC42, RAC1 and RHOA in an inactive cytosolic pool, regulating their stability and protecting them from degradation. Actively involved in the recycling and distribution of activated Rho GTPases in the cell, mediates extraction from membranes of both inactive and activated molecules due its exceptionally high affinity for prenylated forms. Through the modulation of Rho proteins, may play a role in cell motility regulation. In glioma cells, inhibits cell migration and invasion by mediating the signals of SEMA5A and PLXNB3 that lead to inactivation of RAC1.
Research Articles on ARHGDIA	**1.** RhoGDIalpha is involved in the maintenance of glioma stem cells
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