

Product datasheet for **RC200902**

RhoGDI (ARHGDI) (NM_004309) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	RhoGDI (ARHGDI) (NM_004309) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RhoGDI
Synonyms:	GDIA1; HEL-S-47e; NPHS8; RHOGDI; RHOGDI-1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC200902 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCTGAGCAGGAGCCACAGCCGAGCAGCTGGCCAGATTGCAGCGGAGAACGAGGAGGATGAGCACT
 CGGTCAACTACAAGCCCCGGCCAGAGAGCATCCAGGAGATCCAGGAGCTGGACAAGGACGACGAGAG
 CCTGCGAAAGTACAAGGAGGCCCTGCTGGGCCGCGTGGCCGTTTCCGAGACCCCAACGTCCCCAACGTC
 GTGGTGACTGGCCTGACCCTGGTGTGCAGCTCGGCCCGGGCCCCCTGGAGCTGGACCTGACGGGCGACC
 TGGAGAGCTTCAAGAAGCAGTCGTTTGTGCTGAAGGAGGGTGTGGAGTACCGGATAAAAATCTCTTTCCG
 GGTTAACCGAGAGATAGTGTCCGGCATGAAGTACATCCAGCATACGTACAGGAAAGGCGTCAAGATTGAC
 AAGACTGACTACATGGTAGGCAGCTATGGGCCCGGGCCGAGGAGTACGAGTTCTTGACCCCGTGGAGG
 AGGCACCAAGGGTATGCTGGCCCGGGGACGTACAGCATCAAGTCCCGCTTACAGACGACGACAAGAC
 CGACCCTGTCTGGGAGTGAATCTCACCATCAAGAAGGACTGGAAGGAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC200902 protein sequence Red=Cloning site Green=Tags(s)
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MAEQEPTAEQLAQIAAENEDEHSVNYKPPAQKSIQEIQLDKDDSLRKYKEALLGRVAVSADPNVNPV
 VVTGLTLVCSSAPGPLELDLTGDLESFKKQSFVLKEGVEYRIKISFRVNREIVSGMKYIQHTYRKGVKID
 KTDYMGVSYGPRAEYEFLLTPVEEAPKGM LARGSYSIKSRFTDDDKTDHLSWEWNLTIKDKWDK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV


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Chromatograms: https://cdn.origene.com/chromatograms/mk6085_d09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004309

ORF Size: 612 bp

OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

OTI Annotation: This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

Reconstitution Method:

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store the suspended plasmid at -20°C. The DNA is stable for at least one year from date of shipping when stored at -20°C.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

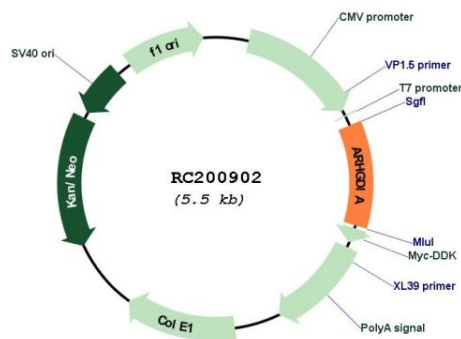
RefSeq: [NM_004309.6](#)

RefSeq Size: 1920 bp

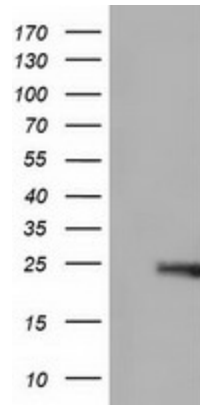
RefSeq ORF:	615 bp
Locus ID:	396
UniProt ID:	P52565
Cytogenetics:	17q25.3
Domains:	Rho_GDI
Protein Families:	Druggable Genome
Protein Pathways:	Neurotrophin signaling pathway
MW:	23.2 kDa

Gene Summary: 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]

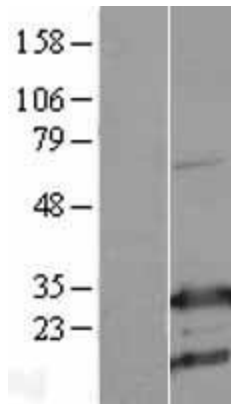
Product images:



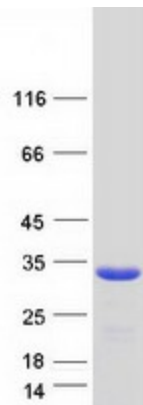
Circular map for RC200902



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARHGDIA (Cat# RC200902, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ARHGDIA (Cat# [TA501089]). Positive lysates [LY401371] (100ug) and [LC401371] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY401371]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC200902 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARHGDIA protein (Cat# [TP300902]). The protein was produced from HEK293T cells transfected with ARHGDIA cDNA clone (Cat# RC200902) using MegaTran 2.0 (Cat# [TT210002]).