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Product datasheet for RC203496

D4 (ARHGDIB) (NM_001175) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	D4 (ARHGDIB) (NM_001175) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	D4
Synonyms:	D4; GDIA2; GDID4; Ly-GDI; LYGDI; RAP1GN1; RhoGDI2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>RC203496 ORF sequence
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACTGAAAAAGCCCCAGAGCCACATGTGGAGGAGGATGACGATGATGAGCTGGACAGCAAGCTCAATT
ATAAGCCTCCACCACAGAAGTCCCTGAAAGAGCTGCAGGAAATGGACAAAGATGATGAGAGTCTAATTAA
GTACAAGAAAACGCTGCTGGGAGATGGTCCTGTGGTGACAGATCCGAAAGCCCCCAATGTCGTTGTCACC
CGGCTCACCCTGGTTTGTGAGAGTGCCCCGGGACCAATCACCATGGACCTTACTGGAGATCTGGAAGCCC
TCAAAAAGGAAACCATTGTGTTAAAGGAAGGTTCTGAATATAGAGTCAAAATTCACTTCAAAGTGAACAG
GGATATTGTGTCAGGCCTGAAATACGTTCAGCACACCTACAGGACTGGGGTGAAAGTGGATAAAGCAACA
TTTATGGTTGGCAGCTATGGACCTCGGCCTGAGGAGTATGAGTTCCTCACTCCAGTTGAGGAGGCTCCCA
AGGGCATGCTGGCCCGAGGCACGTACCACAACAAGTCCTTCTTCACCGACGATGACAAGCAAGACCACCT
CAGCTGGGAGTGGAACCTGTCGATTAAGAAGGAGTGGACAGAA

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC203496 protein sequence
Red=Cloning site Green=Tags(s)

MTEKAPEPHVEEDDDDELDSKLNYKPPPQKSLKELQEMDKDDESLIKYKKTLLGDGPVVTDPKAPNVVVT
RLTLVCESAPGPITMDLTGDLEALKKETIVLKEGSEYRVKIHFKVNRDIVSGLKYVQHTYRTGVKVDKAT
FMVGSYGPRPEEYEFLTPVEEAPKGMLARGTYHNKSFFTDDDKQDHLSWEWNLSIKKEWTE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

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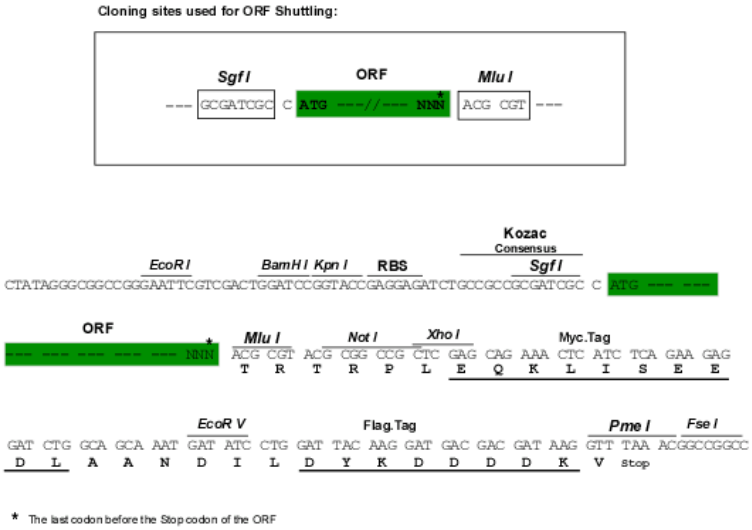
Chromatograms: https://cdn.origene.com/chromatograms/mk6056_c07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001175

ORF Size: 603 bp

OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

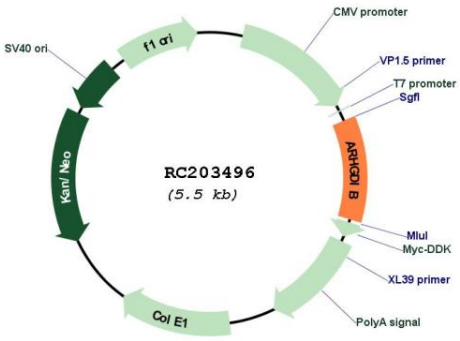
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in 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.

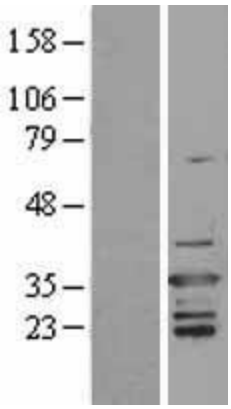
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

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_001175.2
RefSeq Size:	1216 bp
RefSeq ORF:	606 bp
Locus ID:	397
UniProt ID:	P52566
Cytogenetics:	12p12.3
Domains:	Rho_GDI
Protein Families:	Druggable Genome
Protein Pathways:	Neurotrophin signaling pathway
MW:	23 kDa
Gene Summary:	Members of the Rho (or ARH) protein family (see MIM 165390) and other Ras-related small GTP-binding proteins (see MIM 179520) are involved in diverse cellular events, including cell signaling, proliferation, cytoskeletal organization, and secretion. The GTP-binding proteins are active only in the GTP-bound state. At least 3 classes of proteins tightly regulate cycling between the GTP-bound and GDP-bound states: GTPase-activating proteins (GAPs), guanine nucleotide-releasing factors (GRFs), and GDP-dissociation inhibitors (GDIs). The GDIs, including ARHGDIB, decrease the rate of GDP dissociation from Ras-like GTPases (summary by Scherle et al., 1993 [PubMed 8356058]).[supplied by OMIM, Dec 2010]

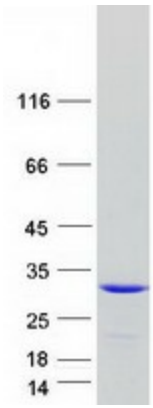
Product images:



Circular map for RC203496



Western blot validation of overexpression lysate (Cat# [LY400471]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC203496 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified ARHGDIB protein (Cat# [TP303496]). The protein was produced from HEK293T cells transfected with ARHGDIB cDNA clone (Cat# RC203496) using MegaTran 2.0 (Cat# [TT210002]).