

## Product datasheet for **RC215591**

### **ARHGEF4 (NM\_015320) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	ARHGEF4 (NM_015320) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	ARHGEF4
Synonyms:	ASEF; ASEF1; GEF4; SMIM39; STM6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



[View online »](#)

ORF Nucleotide  
Sequence:

>RC215591 representing NM\_015320  
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGGATCGCC**

ATGCCCTGGGAAGAACCAGCAGGTGAGAAGCCAGTTGCTCTCACAGTCAGAAGGCATTCCACATGGAGC  
CTGCCCAGAAGCCCTGCTTCACCACTGACATGGTGACATGGGCCCTCCTCTGCATCTCTGCAGAGACTGT  
CGGTGGGAGGCTCCTTCACAGCCTAGGGGCATCCCTCACCGCTCGCCCGTCAGTGTGGATGACCTGTGG  
CTGGAGAAGACACAGAGAAAAGTTGAGAAGCAGGCCACATCGAAAGGAGGCTGCACATAGGGGCGAG  
TGCACAAAGATGGAGTCAAGTGTGGAGAAGACGATCATTACCTCTCCAGAGTCTTTGAATCTCCCTAG  
AAGAAGCCATCCACTCTCCAGAGTGTCCAACGGGACTGAACCACATGGGCTGGCCAGAGCACACACCA  
GGCACTGCCATGCCTGATGGAGCTCTGGACACAGCTGTCTGCGCTGACGAAGTGGGAGCGAGGAGGACC  
TGTATGATGACCTGCACAGCTCCAGCCACCACTACAGCCACCCTGGAGGGGGTGGGAGCAGCTGGCTAT  
CAATGAGCTCATCAGCGATGGCAGTGTGGTCTGCGCTGAAGCACTCTGGGACCATGTCACCATGGACGAC  
CAGGAGCTGGGCTCAAAGCTGGGGACGTCATCGAAGTATGGATGCCACCAACAGAGAGTGGTGGTGGG  
GCCGGGTGCGCGATGGCGAGGGCTGGTTTCCAGCCAGCTTCGTTGCGCTGAGGGTGAATCAGGACGAGCC  
CGCGGATGACGACGCCCTCTGGCCGGGAACAGCGGAGCGGAGGACGGCGGGGCGGAGGCGCAGAGCAGC  
AAGGACCAGATGCGGACCAACGTCATCAACGAGATCCTCAGCACTGAGCGGGACTACATCAAGCACTGC  
GCGACATCTGCGAGGGCTACGTCGGCAGTGCCGCAAGCGCGCAGACATGTTCAAGGAGGAGCAGCTGCG  
TACCATCTTCGGGAACATCGAGGACATCAACCGCTGCCAGAAGCCCTTCGTAAGGCCCTGGAGCAGAGG  
TTCAACCGGAGCGCCACACCTGAGCGAGCTGGTGCCTGCTTCTGGAGCATCAAGCCGACTTCCAGA  
TCTACTCGGAGTACTGCAATAACCACCCCAACGCCTGCGTGGAGCTCTCCCGCTCACCAAGCTCAGCAA  
GTACGTGTAATCTTCGAGGCCTGCCGGCTGCTGAGAAGATGATTGACATCTCCCTGGATGGCTTCCTG  
CTGACTCCGGTGCAGAAGATCTGCAAGTACCCTCTGCAGCTGGCCGAGCTGCTCAAATACACGACCCCC  
AGCACAGGACTTCAAGGATGTTGAAGCCGCTTGCATGCCATGAAGAAGTGGCCAGCTCATCAACGA  
GCGGAAGCGGAGACTTGAGAACATCGACAAGATTGCTCAGTGGCAGAGCTCCATAGAGGACTGGGAGGGA  
GAAGATCTCTGGTCAGGAGCTCAGAACTACTACTCGGGGAGCTGACTCGAGTTACACAGCCTCAAG  
CCAAAAGCCAGCAGCAATGTTCTTTCTTTGACCACCAGCTCATCTACTGTAAGAAGGACCTGCTCCG  
CCGCGACGTGTTGTAACAAGGCGCGCTGGACATGGACGGCTGGAGGTGGTGGACCTGGAGGACGGG  
AAGGACAGAGACCTCCATGTGAGCATCAAGAAGCCTTCCGGCTGCACCGTGGCGCCACAGGGGACAGCC  
ACCTGCTGTGCACCAGGAAGCCGAGCAGAAGCAGCGCTGGCTCAAGGCCCTTGGCAGGGAGAGGGAGCA  
GGTGCAGCTGGACCAGGAGACAGGCTTCTCCATCACTGAACTGCAGAGGAAGCAGGCCATGCTGAATGCC  
AGCAAGCAGCAGGTACAGGGAAGCCAAAGCTGTTGGCCGGCCCTGCTACCTGACGCGCCAGAAGCACC  
CAGCCCTGCCAGCAACCGGCCCCAGCAGCAGGTCCTGGTGGTGGCGGAGCCAGGCGCAAGCCATCTAC  
CTTCTGGCACAGCATCAGCCGGCTGGCACCCCTCCGCAAG

**ACGCGT**ACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC215591 representing NM\_015320  
Red=Cloning site Green=Tags(s)

MPWEEPAGEKPCSCHSQKAFHMEPAQKPCFTTDMVTWALLCISAETVRGEAPSQPRGIPHRSPVSVDDLW  
 LEKTQRKKLQKQAHIERRLHIGAVHKDGVKCRKTIITSPESLNLPRRSHPLSQSAPTGLNMGWPEHTP  
 GTAMPDGLDCAVCADEVGSEEDLYDDLHSSSHHYSHPGGGGEQLAINELISDGSVVCAEALWDHVTMDD  
 QELGFKAGDVIEVMDATNREWWWGRVADGEGWFPASFVRLRVNQDEPADDAPLAGNSGAEDGGAEAQSS  
 KDQMRTNVINEILSTERDYIKHLRDICEGYVRQCRKRAMDFSEEQLRTIFGNIEDIYRCQKAFVKALEQR  
 FNRERPHLSELGACFLEHQADFQIYSEYCNHPNACVELSRLTKLSKYVYFFEACRLLQKMIDISLDGFL  
 LTPVQKICKYPLQLAELLKYTHPQRDFKDVEAALHAMKNVAQLINERKRRELENIDKIAQWQSSIEDWEG  
 EDLLVRSEL IYSGELTRVTQPQAKSQQRMFFLFDHQLIYCKDLLRRDVLYYKGRLDMDGLEVDLEDG  
 KDRDLHVSIKNAFRLHRGATGDSHLLCTRKPEQKQRWLKAFAREREQVQLDQETGFSITELQRKQAMLNA  
 SKQOVTGKPKAVGRPCYLTRQKHPALPSNRPQQQVLVLAEP RRK P STFWHSISR LAPFRK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6166\\_h01.zip](https://cdn.origene.com/chromatograms/mk6166_h01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_015320

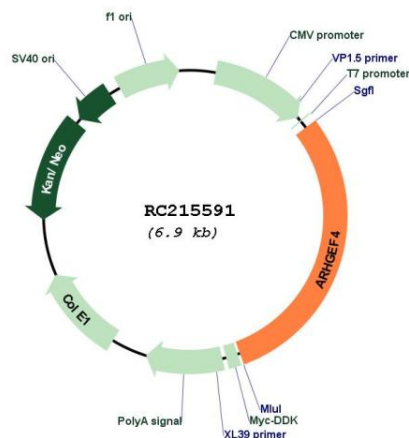
**ORF Size:** 2070 bp

**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](#)

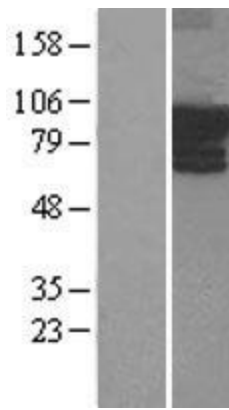
**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_015320.4</a>
<b>RefSeq Size:</b>	3667 bp
<b>RefSeq ORF:</b>	2073 bp
<b>Locus ID:</b>	50649
<b>UniProt ID:</b>	<a href="#">Q9NR80</a>
<b>Cytogenetics:</b>	2q21.1
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Regulation of actin cytoskeleton
<b>MW:</b>	78.9 kDa
<b>Gene Summary:</b>	Rho GTPases play a fundamental role in numerous cellular processes that are initiated by extracellular stimuli that work through G protein coupled receptors. The protein encoded by this gene may form complex with G proteins and stimulate Rho-dependent signals. Multiple alternatively spliced transcript variants encoding different isoforms have been found, but the full-length nature of some variants has not been determined. [provided by RefSeq, Jun 2013]

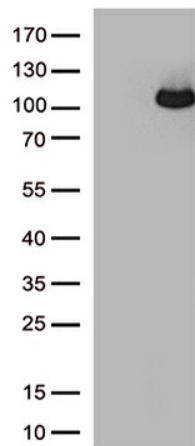
## Product images:



Circular map for RC215591



Western blot validation of overexpression lysate (Cat# [LY402422]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC215591 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARHGEF4 (Cat# RC215591, 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-ARHGEF4 antibody (Cat# [TA812765])(1:500)