

## Product datasheet for **SC324167**

### ARHGEF1 (NM\_004706) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF1 (NM_004706) Human Untagged Clone
Tag:	Tag Free
Symbol:	ARHGEF1
Synonyms:	GEF1; IMD62; LBCL2; LSC; P115-RHOGEF; SUB1.5
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_004706.3  
 CTTCCGGTCCGGTGGCGCGATGGCTTCTTTTCCACCTGGAGCAGCCCTGCAGAGCCCA  
 GGGAGATGGAAGACTTCGCCCGAGGGGGCGCCTCCCCAGGCCCTCCCGCCTGGCCTGG  
 TTCCCGTCAGCATCATCGGGCTGAGGATGAGGATTTTGAGAACGAGCTGGAGACAACT  
 CAGAAGAGCAAAACAGCCAGTTCAGAGCCTGGAGCAGGTGAAGCGGCGCCAGCCACC  
 TCATGGCCCTCCTGCAGCACGTGGCCCTGCAGTTTGGCCAGGACCCCTGCTTTGCTGTC  
 TGCATGCCGACATGCTGGGCTCACTGGGCCCAAGGAGGCAAGAAGGCCTTCTGGACT  
 TCTACCACAGCTTCTGGAGAAGACAGCGGTTCTCCGGGTGCCGTCCCTCCCAACGTCCG  
 CCTTTGAACTTGACCGCACTAGGGCTGACCTCATCTCCGAGGATGTCCAGCGCGGTTCCG  
 TGCAGGAGGTGGTCAAAGCCAGCAGGTAGCCGTGGGCCCGCAGCTGGAGACTTCCGTT  
 CCAAGCGGCTCATGGGCATGACGCCCTGGGAGCAGGAGCTGGCCAGCTGGAGGCTTGGG  
 TTGGGCGGGACCGAGCCAGCTACGAGGCCCGGGAGCGGCACGTGGCGGAGCGGCTGCTCA  
 TGCACCTGGAGGAGATGCAACATACCATCTCTACCGACGAAGAAAAGAGTGCTGCCGTGG  
 TCAACGCCATTGGCCTGTACATGCGCCACCTTGGGGTGGCGACCAAGAGTGGAGACAAGA  
 AGTCGGGGAGGAACTTCTTCCGGAAAAAGGTGATGGGGAACCGCGGTCCGACGAGCCTG  
 CCAAGACCAAGAAGGGGCTGAGCAGCATCCTGGATGCCGCCCGCTGGAACCGGGGAGAGC  
 CCCAGGTTCCAGATTTTCGACACCTCAAAGCAGAGGTTGATGCCGAGAAGCCAGGTGCTA  
 CAGACCCGAAGGGAGGCGTGGGGATGCCCTCTCGGGACCGGAATATCGGGGCTCCTGGGC  
 AGGACACCCCTGGAGTCTCTGCACCTCTGTCCCTGGACAGCCAGACCGGGAACCGAG  
 GTGCTGACGCCCCCTGGAGCTGGGGACTCATCCCCGACAGGGCCAATGAGCTGGAGT  
 CCTTGGCGCCCCAGAGAGTACCGACGAGGGGGCCGAAACCGAGAGCCCCGAGCCTGGAG  
 ATGAGGGGGAGCCGGGGCGGTCCGGACTGGAGCTTGAACCAAGAGCCTCCCGGCTGGC  
 GGGAACTCGTCCCCCAGACACCCTGCACAGCCTGCCAAGAGCCAGGTGAAGCGGCAGG  
 AGGTCATCAGCGAGCTGCTGGTACAGAGGGCGCCACGTGCGCATGCTGCGGGTCTGC  
 ACGACCTTTCTCCAGCCCATGGCAGAATGCCTGTTCTTCCCTTGGAGGAGCTGCAGA  
 ACATTTCCCCAGCCTGGACGAGCTCATCGAGGTGCATTCCCTGTTCTCCTGATCGCCTGA  
 TGAAGCGGAGGCAGGAGAGTGGTACCTCATCGAGGAGATCGGAGACGTGCTGCTGGCC



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GGTTTGATGGTGTGAGGGCTCCTGGTTCCAGAAAATCTCCTCCCCTTCTGCAGCCGCC
AGTCATTTGCCTTAGAGCAGCTCAAAGCCAAGCAACGCAAGGACCTCGGTTCTGTGCCT
TCGTGCAGGAAGCTGAGAGCCGCCCGGGTCCCGCCGCTGCAGCTGAAGGACATGATCC
CCACGGAGATGCAGCGGCTGACCAAGTACCCCTGCTCCTGCAGAGCATCGGGCAGAACA
CAGAAGAGCCCACAGAACGGGAGAAAGTGGAGCTGGCAGCCGAGTGTGCCGGAAATTC
TACACCACGTCAACCAAGCCGTGCGTGACATGGAGGACCTGCTGAGGCTCAAGGACTATC
AGCGGGCCTGGACTTGTCCCACCTTCGGCAGAGCAGCACCCTATGCTGAGCGAGTTCA
AGAACCTGGACATCACCAAGAAGAAATTGGTCCACGAGGGCCCACTGACGTGGCGGGTGA
CTAAGGACAAGGCAAGTGGAGGTGATGTGCTGCTGCTGGACGACCTGCTGCTGCTCC
AGGCCAGGACGAGCGGCTGCTGCTCAAGTCCCATAGCCGGACTGACGCCACGCCCG
ATGGCAAGACCATGCTGCGGCCGTGCTGCGGCTCACCTCCGCATGACCCGCGAGGTGG
CCACCGATCACAAGCCTTCTACGTCCTTTTACCTGGGACCAGGAGGCCAGATATACG
AGCTGGTGGCACAGACTGTGTCGGAGCGGAAAACTGGTGTGCTCTCATCACTGAGACTG
CCGGATCCCTGAAAGTCCCTGCCCTGCCTCTCGCCCTAAGCCCCGGCCAGCCCGAGCA
GCACCCGAGAACCCTCCTCAGCAGCTCTGAGAACGGCAATGGTGCCGAGAGACGTCTC
CAGCTGATGCCCGACCGAGAGAATCCTCAGTGACCTCCTGCCCTTCTGCAGACCAGGCC
CCGAGGGCCAGCTCGCTGCCACGGCCCTTCGAAAGTGCTGTCCCTGAAGCAGCTTCTGT
TTCCGGCGGAGGAAGACAATGGGGCGGGCCCTCCTCGAGATGGGGATGGGGTCCCAGGGG
GCGGCCCTGAGCCAGCACGGACCCAGGAAATCCAGGAGAACCTGCTCAGCTTGAGG
AGACCATGAAGCAGCTGGAGGAGTTGGAGGAGGAATTTGCCGCCTGAGACCCCTCCTGT
CTCAGCTTGGGGGAACTCTGTCCCCAGCCTGGCTGCACTTGAGGTTCCCGCCAGGAA
GGCCTTTTGAAGAAGGAGAGGAATGGGGGAGAGGACGTGAGGGACCACCCCAACCACA
CAGTCCCGCAGCATCTCACACCCGAGGGCCTGAGGAGAGGGAGCTGTGGGCCACGCCT
GGGAGGGCCCACTGGGGTTACTGGCCCGCATGAGCCTCGGCCATCTCTCCCTCCTGC
CCTCTGCTTGGGGACTCAGGGCTCCATTCTGGAGGGCACACGGTGACCCGGGCATCT
CAGTATTGCCTGTGGGGCCACCCTCCACCCCAACCCCAAGTGCCTTGCCTCTGTTTT
TATACCCTGAATTGGAGGTTTATTTTTAATATATATTATCTAAGAAAAAAAAAAAAAA
    
```

**Restriction Sites:**

ECoRI-NOT

**ACCN:**

NM\_004706

**OTI Disclaimer:**

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:**

This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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.

RefSeq:	<a href="#">NM_004706.3</a> , <a href="#">NP_004697.2</a>
RefSeq Size:	3236 bp
RefSeq ORF:	2739 bp
Locus ID:	9138
UniProt ID:	<a href="#">Q92888</a>
Cytogenetics:	19q13.2
Domains:	RhoGEF, PH
Protein Pathways:	Regulation of actin cytoskeleton, Vascular smooth muscle contraction
Gene Summary:	<p>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. Multiple alternatively spliced transcript variants have been found for this gene, but the full-length nature of some variants has not been defined. [provided by RefSeq, Jul 2008]</p> <p>Transcript Variant: This variant (2) has an alternate 5' exon and uses a downstream start codon, as compared to variant 1. The encoded isoform 2 thus has a shorter N-terminus, as compared to isoform 1.</p>