

## Product datasheet for **SC117214**

### 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:	None
Vector:	<u><a href="#">pCMV6-XL6</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC117214 sequence for NM\_004706 edited (data generated by NextGen Sequencing)

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ATGGAAGACTTCGCCCGAGGGCGGCCTCCCCAGGCCCTCCCGGCCTGGCCTGGTTCCC
GTCAGCATCATCGGGGCTGAGGATGAGGATTTTGAGAACGAGCTGGAGACAAACTCAGAA
GAGCAAAACAGCCAGTTCCAGAGCCTGGAGCAGGTGAAGCGGCCCCAGCCCACCTCATG
GCCCTCCTGCAGCACGTGGCCCTGCAGTTTGAGCCAGGACCCCTGCTTTGCTGTCTGCAT
GCCGACATGCTGGGCTCACTGGGCCCAAGGAGGCCAAGAAGGCCTTCCCTGGACTTCTAC
CACAGTTCCTGGAGAAGACAGCGGTTCTCCGGGTGCCGGTCCCTCCCAACGTGCGCTTT
GAACCTTGACCGCACTAGGGCTGACCTCATCTCCGAGGATGCCAGCGCGGTTCTGTGCAG
GAGGTGGTGCAAAGCCAGCAGGTAGCCGTGGGCCGGCAGCTGGAGGACTCCGTTCCAAG
CGGCTCATGGGCATGACGCCCTGGGAGCAGGAGCTGGCCAGCTGGAGGCTTGGGTTGGG
CGGGACCGAGCCAGCTACGAGGCCCGGGAGCGCACGTGGCGGAGCGGCTGCTCATGCAC
CTGGAGGAGATGCAACATACCATCTCTACCGACGAAGAAAAGAGTGTGCCGTGGTCAAC
GCCATTGGCCTGTACATGCGCCACCTTGGGGTGGCGACCAAGAGTGGAGACAAGAAGTCG
GGGAGGAACTTCTCCGGAAGGATGATGGGGAACCGGCGGTGGGACGAGCCTGCCAAG
ACCAAGAAGGGGCTGAGCAGCATCTGGATGCCGCCCGCTGGAACCGGGGAGAGCCCAAG
GTTCCAGATTTTCGACACCTCAAAGCAGAGGTTGATGCCGAGAAGCCAGGTGCTACAGAC
CGGAAGGGAGGCGTGGGGATGCCCTCTCGGGACCGGAATATCGGGGCTCCTGGGCAGGAC
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GACGCCCCCTGGAGCTGGGGGACTCATCCCCGAGGGCCCAATGAGCCTGGAGTCTTG
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GGGAGCCGGGGCGGTGGGACTGGAGCTTGAACCAGAAGAGCCTCCCGGCTGGCGGGAA
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CTCTTCTCCAGCCCATGGCAGAATGCCTGTTCTTCCCCTGGAGGAGCTGCAGAACATC
TCCCCAGCCTGGACGAGCTCATCGAGGTGCATTCCCTGTTCTCGATCGCCTGATGAAG
CGGAGGCAGGAGAGTGGCTACCTCATCGAGGAGATCGGAGACGTGCTGCTGGCCCGTTC
GATGGTGTGAGGGCTCCTGGTTCAGAAAATCTCCTCCCGTCTGCAGCCGCCAGTCA
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CAGGAAGCTGAGAGCCGCCCGGTTGCCCGCCTGCAGCTGAAGGACATGATCCCCACG
GAGATGCAGCGGCTGACCAAGTACCCCTGCTCCTGCAGAGCATCGGGCAGAACACAGAA
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CACGTCACCAAGCCGTGCGTGACATGGAGGACCTGCTGAGGCTCAAGGACTATCAGCGG
CGCCTGGACTTGTCCCACCTTCGGCAGAGCAGCGACCCTATGCTGAGCGAGTTCAAGAAC
CTGGACATCACCAAGAAGAAATTGGTCCACGAGGGCCCACTGACGTGGCGGGTACTAAG
GACAAGGCAGTGGAGGTGCATGTGCTGTGCTGGACGACCTGCTGCTGCTCCAGCGC
CAGGACGAGCGGCTGTGCTCAAGTCCCATAGCCGGACACTGACGCCACGCCGATGGC
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GGCCAGCTCGCTGCCACGGCCCTTCGGAAGTGTGTCCCTGAAGCAGCTTCTGTTTCCG
GCGGAGGAAGACAATGGGGCGGGCCTCCTCGAGATGGGGATGGGGTCCCAGGGGGCGGC
CCCCTGAGCCCAGCACGGACCCAGGAAATCCAGGAGAACCTGCTCAGCTTGGAGGAGACC
ATGAAGCAGCTGGAGGAGTTGGAGGAGGATTTTCCCGCCTGAGACCCCTCCTGTCTCAG
CTTGGGGGAACCTGTCCCCACGCTGGCTGCACTTGA

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Clone variation with respect to NM\_004706.3

**5' Read Nucleotide Sequence:** >OriGene 5' read for NM\_004706 unedited  
 GCACGAGGCGGGATCGCCGAGCCCGACCTCGGGCGCCCCGCCGGTCACTCCGCGCGGAC  
 ACCAGCCCTGCAGAGCCAGGGAGATGGAAGACTTCGCCCGAGGGGGCGGCCTCCCCAGGC  
 CCCTCCCGGCCTGGCCTGGTTCCCGTCAGCATCATCGGGGCTGAGGATGAGGATTTTGAG  
 AACGAGCTGGAGCAAACCTCAGAAGAGCAAAACAGCCAGTTCCAGAGCCTGGAGCAGGTG  
 AAGCGGCGCCAGCCACCTCATGGCCCTCCTGCAGCACGTGGCCCTGCAGTTTGAGCCA  
 GGACCCCTGCTTTGCTGTCTGCATGCCGACATGCTGGGCTCACTGGGCCCAAGGAGGCC  
 AAGAAGGCCTTCCTGGACTTCTACCACAGCTTCCTGGAGAAGACAGCGGTTCTCCGGGTG  
 CCGGTCCCTCCCAACGTCGCCTTTGAACTTGACCGCACTAGGGCTGACCTCATCTCCGAG  
 GATGTCCAGCGCGGTTTCGTGCAGGAGGTGGTGC AAAGCCAGCAGGTAGCCGTGGGCCGG  
 CAGCTGGAGGACTTCGTTCCAAGCGGCTCATGGGCATGACGCCCTGGGAGCAGGAGCTG  
 GCCCAGCTGGAGGCTTNGTTGGGCGGGACCGAGCCAGCTACGAGGCCGGGAGCGGCAC  
 GTGGCGGAGCGGCTGCTCATGCA

**3' Read Nucleotide Sequence:** >OriGene 3' read for NM\_004706 unedited  
 GGGACTATGTACCTCGGCCGACCTCNAAAGTCGAGTTTTTTTTTTTTTTTTTTTCTTCTT  
 AGATAATATATATATAAAAAATAAACCTCCAATTCAGGCTATAAAAAACAGATCGAATGCAC  
 TTGGGGGTGGGGGTGGAGGGGTGNCCCCACACGCCATCCTGANATGGCCCGGTCACCG  
 TGGTGCCTCCANAATGGAGCCCTGAGTCCCCCAATCTTTTTTTTGGAGGAGACATGGC  
 CTTGGCTCGTGGGGCCTTAACCCCATCTGGTCCCCTCCCATGCGTGGCCACATCTC  
 CCTCTCCTCATGCCCTCGGGGTGTGAGATGCTGCCGACGCTGTGGGTGGGGTGGTCC  
 CTTACCTCCTCTCCCCNTTCTCTCCTTCTTGCNTAATGCCTTCTGGGCGGGCACCT  
 CTCTCCCCTCGTCTTTGTGTACATTTCCCCCCATCTTTCCCTGCCGTTCTCAGGC  
 CGCAATTTTCCCCTCCCTCTCCTCCCCCTCCTTATGTCCCCTCCAACCTGCCANGC  
 TCTCCTTGCCCTCCTCCCCCCCCCCTTCTTGGCCCCCCCCCTTTTTCCCCTCTCT  
 CTCTTTGCCTTTCCCCCCCCCTTTTTTCTCCTCCCCTATCCCACCCTTTTTTTCTCC  
 CCTTTTCCCATGCTTCTTTTCTTCCCTTTTGCCCTTCTCCTCCCCCTTTTTCT  
 TTTGCCCCCCCGCCTCTTCTCCCCCACCTTCCCTTCCCGTTCCTTTCTTTCCCTT  
 CCTTTCCCTTCTCCTCCTCTCCCTTTGTCCCTTTCCCTTCTCCTTCCCCCCCC  
 CCCCCTCCTCGCCTCTCTCCTTCCCCTTACCTTCCCTGTTCCCCTTTTTCACTTC  
 ACTCAACCACCCCTTAAT

**Restriction Sites:** ECoRI-NOT

**ACCN:** NM\_004706

**Insert Size:** 3400 bp

**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).

**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).

<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>	<u>NM_004706.3</u> , <u>NP_004697.2</u>
<b>RefSeq Size:</b>	3236 bp
<b>RefSeq ORF:</b>	2739 bp
<b>Locus ID:</b>	9138
<b>UniProt ID:</b>	<u>Q92888</u>
<b>Cytogenetics:</b>	19q13.2
<b>Domains:</b>	RhoGEF, PH
<b>Protein Pathways:</b>	Regulation of actin cytoskeleton, Vascular smooth muscle contraction
<b>Gene Summary:</b>	<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>