

## Product datasheet for **SC121265**

### ARHGEF1 (NM\_198977) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	ARHGEF1 (NM_198977) 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:** >NCBI ORF sequence for NM\_198977, the custom clone sequence may differ by one or more nucleotides

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ATGGAAGACTTCGCCGAGGGGCGGCCTCCCCAGGCCCTCCCGCCTGGCCTGGTTCCTCCCGTACGATCA
TCGGGGCTGAGGATGAGGATTTTGAGAAGGAGCTGGAGACAACTCAGAAGAGCAAAACAGCCAGTTCCA
GAGCCTGGAGCAGGTGAAGCGGCGCCAGCCACCTCATGGCCCTCCTGCAGCACGTGGCCCTGCAGTTT
GAGCCAGGACCCCTGGTTCTCCGGGTGCCGGTCCCTCCCAACGTCGCCTTTGAACCTTGACCGCACTAGGG
CTGACCTCATCTCCGAGGATGTCCAGCGCGGTTTCGTGCAGGAGGTGGTGCAAAGCCAGCAGGTAGCCGT
GGGCCGCGAGCTGGAGGACTTCCGTTCCAAGCGGCTCATGGGCATGACGCCCTGGGAGCAGGAGCTGGCC
CAGCTGGAGGCTTGGGTTGGGCGGACCGAGCCAGCTACGAGGCCGGGAGCGGCACGTGGCGGAGCGGC
TGCTCATGCACCTGGAGGAGATGCAACATAACCATCTCTACCGACGAAGAAAAGAGTGTGCCGTGGTCAA
CGCCATTGGCCTGTACATGCGCCACCTTGGGGTGGGACCAAGAGTGGAGACAAGAAGTCGGGGAGGAAC
TTCTTCCGAAAAGGTGATGGGAACCGCGGTGGACGAGCCTGCCAAGACCAAGAAGGGGCTGAGCA
GCATCCTGGATGCCGCCCTGGAACCGGGGAGAGCCCCAGGTTCCAGATTTTCGACACCTCAAAGCAGA
GGTTGATGCCGAGAAGCCAGGTGTACAGACCGGAAGGGAGGCGTGGGGATGCCCTCTCGGGACCGGAAT
ATCGGGGCTCCTGGGCAGGACACCCCTGGAGTCTCTCTGCACCCTCTGTCCCTGGACAGCCAGACCGGG
AACCAGGTGCTGACGCCCCCTGGAGCTGGGGACTCATCCCCGAGGGCCCAATGAGCCTGGAGTCCCTT
GGCGCCCCCAGAGAGTACCGACGAGGGGGCCGAAACCGAGAGCCCCGAGCCTGGAGATGAGGGGGAGCCG
GGGCGGTGGGACTGGAGCTTGAACCAGAAGAGCCTCCCGGTGGCGGAACTCGTCCCCCAGACACCC
TGCACAGCCTGCCAAGAGCCAGGTGAAGCGCAGGAGTTCATCAGCGAGCTGCTGGTGCAGAGGGCGC
CCACGTGCGCATGCTGCGGGTGTGCACGACCTTCTTCCAGCCATGGCAGAATGCCTGTTCTTCCCC
TTGGAGGAGCTGCAGAACATCTTCCCCAGCCTGGACGAGCTCATCGAGGTGCATTCCTGTTCTCTCGAT
GCCTGATGAAGCGGAGGCAGGAGAGTGGCTACCTCATCGAGGAGATCGGAGACGTGCTGCTGGCCCGGTT
TGATGGTGTGAGGGCTCCTGGTTCCAGAAAATCTCTCCCGTCTGACGCCGCAAGTCAATTTGCCTTA
GAGCAGCTCAAAGCCAAGCAACGCAAGGACCCCGGTTCTGTGCCTTCGTGCAGGAAGCTGAGAGCCGCC
CGCGGTGCCGCCCTGCAGCTGAAGGACATGATCCCCACGGAGATGCAGCGGCTGACCAAGTACCCCTT
GCTCCTGCAGAGCATCGGGCAGAACACAGAAGAGCCACAGAACGGGAGAAAAGTGGAGCTGGCAGCCGAG
TGCTGCCGGAAATTCTACACCAGTCAACCAAGCCGTGCGTGCATGGAGGACCTGCTGAGGCTCAAGG
ACTATCAGCGGCGCCTGGACTTGTCCACCTTCGGCAGAGCAGCGACCCTATGCTGAGCGAGTTCAAGAA
CCTGGACATCACCAAGAAGAAATTTGGTCCACGAGGGCCACTGACGTGGCGGGTACTAAGGACAAGGCA
GTGGAGGTGCATGTGCTGCTGCTGGACGACCTGCTGCTGCTGCTCCAGCGCCAGGACGAGCGGCTGCTGC
TCAAGTCCCATAGCCGGACTGACGCCACGCCGATGGCAAGACCATGCTGCGGCCCGTGTGCGGCT
CACCTCCGCCATGACCCGCGAGGTGGCCACCGATCACAAGCCTTCTACGTCCTTTTACCTGGGACCAG
GAGGCCAGATATACGAGCTGGTGGCACAGACTGTGTCGGAGCGGAAAACCTGGTGTGCTCTCATCACTG
AGACTGCCGATCCCTGAAAGTCCCTGCCCTGCCTCTCGCCCTAAGCCCCGGCCAGCCCGAGCAGCAC
CCGAGAACCCCTCCTCAGCAGCTCTGAGAACGGCAATGGTGGCCGAGAGACGTCTCCAGCTGATGCCCGG
CCCTTCGAAAAGTGTGTCCTGAAGCAGCTTCTGTTTCCGGCGGAGGAAGACAATGGGGCGGGCCCTCC
TCGAGATGGGGATGGGGTCCAGGGGGCGGCCCTGAGCCAGCACGGACCCAGGAAATCCAGGAGAAC
CTGCTCAGCTTGGAGGAGACCATGAAGCAGCTGGAGGAGTTGGAGGAGGAATTTGCCGCTGAGACCC
TCCTGTCTCAGCTTGGGGGAACTGTGCCCCAGCCTGGCTGCATTGA
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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_198977 unedited GCACGAGGGCGCAAAGGTGGACTCAGGGCGGCTAGAGCGACGCGGCGGCAGGGGTGGGA GAGTGCAGAGCCCGAGCGCGGAGGCTTCGGTTCGGTGGCGGCGATGGCTTCTCTTTCCA CCTGGAGCAGCCCTGCAGAGCCAGGGAGATGGAAGACTTCGCCCAGGGGCGGCCTCCC CAGGCCCTCCCAGGCTGGCCTGGTTCCTCGTCAGCATCATCGGGGCTGAGGATGAGGATT TTGAGAACGAGCTGGAGACAACTCAGAAGAGCAAAACAGCCAGTTCAGAGCCTGGAGC AGGTGAAGCGGGCGCCAGCCACCTCATGGCCCTCCTGCAGCACGTGGCCCTGCAGTTTG AGCCAGGACCCCTGGTTCTCCGGTGCCGGTCCCTCCCAACGTCGCCTTTGAACTTGACC GCACTAGGGCTGACCTCATCTCCGAGGATGTCCAGCGGGGTTCTGTGAGGAGGTGGTGC AAAGCCAGCAGGTAGCCGTGGGCCGCGCAGCTGGAGGACTTCCGTTCCAAGCGGCTCATGG GCATGACGCCCTGNGAGCAGGAGCTGGCCAGCTGGAGG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_198977
<b>OTI Disclaimer:</b>	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).
<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>	<u><a href="#">NM_198977.1</a></u> , <u><a href="#">NP_945328.1</a></u>
<b>RefSeq Size:</b>	3137 bp
<b>RefSeq ORF:</b>	2640 bp
<b>Locus ID:</b>	9138
<b>UniProt ID:</b>	<u><a href="#">Q92888</a></u>
<b>Cytogenetics:</b>	19q13.2
<b>Protein Pathways:</b>	Regulation of actin cytoskeleton, Vascular smooth muscle contraction

**Gene Summary:**

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]

Transcript Variant: This variant (3) has an alternate 5' exon and lacks an in-frame internal exon, as compared to variant 1. The encoded isoform 3 thus has a shorter N-terminus and lacks an internal segment, as compared to isoform 1.