

## Product datasheet for **SC112671**

### Desmocollin 2 (DSC2) (NM\_004949) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Desmocollin 2 (DSC2) (NM_004949) Human Untagged Clone
Tag:	Tag Free
Symbol:	Desmocollin 2
Synonyms:	ARVD11; CDHF2; DG2; DGII/III; DSC3
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL4</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >NCBI ORF sequence for NM\_004949, the custom clone sequence may differ by one or more nucleotides

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ATGGAGGCAGCCCGCCCTCCGGCTCCTGGAACGGAGCCCTCTGCCGGCTGCTCCTGCTGACCCCTCGCGA
TCTTAATATTTGCCAGTGATGCCTGCAAAAATGTGACATTACATGTTCCCTCCAACTAGATGCCGAGAA
ACTTGTGGTAGAGTTAACCTGAAAGAGTGCTTTACAGCTGCAAATCTAATTCATCAAGTGATCCTGAC
TTCCAAATTTTGGAGGATGGTTCACTCTATACAACAAATACTATTCTATTGTCCTCGGAGAAGAGAAGTT
TTACCATATTACTTTCCAACACTGAGAACCAAGAAAAGAAGAAAATATTTGTCTTTTGGAGCATCAAAC
AAAGGTCTAAAGAAAAGACATACTAAAGAAAAGTTCTAAGGCGCGCAAGAGAAGATGGGCTCCAATT
CCTTGTTCGATGCTAGAAAACCTCTGGGTCCTTTTCCACTTTTCTTCAACAGGTTCAATCTGACACGG
CCCAAACTATAACCATATACTATTCCATAAGAGGTCCTGGAGTTGACCAAGAACCCTCGGAATTTATTTTA
TGTGGAGAGAGACTGGAACTGTATTGTACTCGTCTGTAGATCGTGAGCAGTATGAATCTTTTGAG
ATAATTGCCTTTGCAACAACTCCAGATGGGTATACTCCAGAACTCCACTGCCCTAATAATCAAATAG
AGGATGAAAATGATAACTACCAATTTTACAGAAGAACTTATACTTTTACAATTTTGGAAAATTCGAG
AGTGGGCACTACTGTGGGACAAGTGTGTCTACTGACAAAAGATGAGCCTGACACGATGCACACACGCTG
AAGTACTCCATCATTGGGCAGGTGCCACCATCACCCACCCTATTTTCTATGCATCCAACACAGGCGTGA
TCACCACAACATCATCTCAGCTAGACAGAGAGTTAATTGACAAGTACCAGTTGAAAATAAAAGTACAAGA
CATGGATGGTCAGTATTTTGGTCTACAGACAACCTCAACTTGTATCATTAACTGATGATGTAATGAC
CACTTGCCAACATTTACTCGTACTTCTTATGTGACATCAGTGGAAAGAAAATACAGTTGATGTGAAAATCT
TACGAGTTACTGTTGAGGATAAGGACTTAGTGAATACTGCTAACTGGAGAGCTAATTATACCATTTTAA
GGGCAATGAAAATGGCAATTTTAAAATTGTAACAGATGCCAAAACCAATGAAGGAGTTCTTTGTGAGTT
AAGCCTTTGAATTATGAAGAAAAGCAACAGATGATCTTGCAAATGGGTGATGTTAATGAAGCTCCATTTT
CCAGAGAGGCTAGTCCAAGATCAGCCATGAGCACAGCAACAGTTACTGTTAATGTAGAAGATCAGGATGA
GGGCCCTGAGTGTAAACCCTCCAATACAGACTGTTGCGATGAAAGAAAATGCAGAAGTGGGAACAACAAGC
AATGGATATAAAGCATATGACCCAGAAAACAAGAAGTAGCAGTGGCATAAAGGTATAAGAAATTAAGTATC
CAACAGGGTGGTCAACATTGATGAAAATACAGGATCAATCAAAGTTTTTCAAGAAGCTGGATAGAGAGGC
AGAGACCATCAAAAATGGCATATAATATTACAGTCTTGCATCAGACCAAGGAGGGAGAACATGTACG
GGGACTGGGCATTACTTCAAGACGTGAATGATAACAGCCCATTCATACCTAAAAGACAGTATGATCA
TCTGCAAACCCACCATGTCATCTGCGGAGATTGTTGCGGTTGATCCTGATGAGCCTATCCATGGCCACC
CTTTGACTTTAGTCTGGAGAGTTCTACTTCAGAAGTACAGAGAATGTGGAGACTGAAAGCAATTAATGAT
ACAGCAGCACGTCTTTCCTATCAGAATGATCCTCCATTTGGCTCATATGTAGTACCTATAACAGTGAAG
ATAGACTTGGCATGTCTAGTGCTACTTCATTGGATGTTACTGTGTGACTGCATTACCGAAAATGACTG
CACACATCGTGTAGATCCAAGGATTGGCGGTGGAGGAGTACAACCTGGAAAGTGGGCCATCCTTGAATA
TTGTTGGGCATAGCATTGCTCTTTTGCATCCTGTTTACGCTGGTCTGTGGGGCTTCTGGGACGTCTAAAC
AACCAAAAGTAATTCCTGATGATTTAGCCAGCAGAACCTAATTTGATCAAACACAGAAGCTCCTGGAGA
TGACAAAGTGTATTCTGCGAATGGCTTCACAACCCAACTGTGGGCGCTTCTGCTCAGGGAGTTTGTGGC
ACCGTGGGATCAGGAATCAAAAACGGAGGTCAGGAGACCATCGAAATGGTGAAGGAGGACACACAGACCT
CGGAATCCTGCCGGGGGCTGGCCACCATCACACCCTGGACTCTGCAGGGGAGGACACACGGAGGTGGA
CAACTGCAGATACACTTACTCGGAGTGGCACAGTTTACTCAGCCCCGTCTTGGTGAAGAATCCATTAGA
GGACACACTCTGATTAATAAATTA
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**5' Read Nucleotide Sequence:**

>OriGene 5' read for NM\_004949 unedited  
 GGGTCANAATTTGTATACGACTCACTATAGGCGGCCGGAATTCGCACGAGGATGGGCCT  
 TATAGGTGGCGTCCGCTGGTGAGAAACACCTTGCGCAGTAAAAGGTGGCGGCGAGAGGGA  
 GTTCCCACCCGTGGCTTTCTTAGAGAAATGAAGTCTTAAGTCTTAAATAGACAACAAGGA  
 GGGGCCGATCGGTGTCTTTTGGACGCGTCTGGAGCCCCCTCCCTCCGCCAAAGGAAAAGCC  
 CCTTGGATGAGAGGCAGGCGCTTTCAGAGAAGCTAAGAAAAGCACCTCTCCGCGCGCCCA  
 CCTCCTCCGCTCGCGCTCCTCCTGAGCAGCGGGCCAGACTGCGCTCCGCGCCGCGGCC  
 TCGCCCCGCGGAGCCCTCTACCCGCGCCGACGCTCGGCCCGGACCTGCCCCGAGCCC  
 TCTCCATGGAGGCAGCCCGCCCTCCGGCTCCTGGAACGAGCCCTCTGCCGGCTGCTCC  
 TGCTGACCCTCGCGATCTTAATATTTGCCAGTGATGCCTGCAAAAATGTGACATTACATG  
 TTCCCTCCAACTAGATGCCGAGAACTTGTGGTAGAGTTAACCTGAAAGAGTGCTTTA  
 CAGCTGCAAACTAATTCATTCAAGTGATCCTGACTTCCAAATTTTGGAGGATGGTTCAG  
 TCTATAACAATACTATTCTATTGCTCTNCGAGAAGAGAAGTNTACCATATTACTTT  
 CNCACACTGAGAAACCAAGANAGAAAGAAATATTTNGTCTTTTTGGAGCATCANACANAG  
 GTCCCCTAAAGAAAGACATACTATAGAAAAGTCTAAGGCGGCCAGAGAAGATGGGC  
 TNCATTCTTGTTCGATGCTAGAAAACNCTTGGGTCCTTTTTNCACTTTTCTTNCAC  
 AGGNTCATCTGACACGGCCANAACATATACATATACTATT

**3' Read Nucleotide Sequence:**

>OriGene 3' read for NM\_004949 unedited  
 NCCCTCNTATGNNACCGCGCCGCAATTTANNATCGAGTTTTTTTTTTTTTTTTTTTTTTT  
 TTTTTTTTTTTTTATGACTAGCCATTTTATCTAAGTTATAAAAAGTTACCCAGGGAG  
 CCTTCAAGATCCCTATATTTTAAAGCTTATTTCAAAAACCATCACTACTTCACATTTTAA  
 AACTGCATCCTTGCAATTACAGAAGTAAATGGGTTGTCATACAGTAAATATCCACATCC  
 CAATTCTAATTACACCATTCTTGTGTGTTAACACAGAGCACTGCTTCTAATAAAAAGCATGG  
 CATAGTTCTACAGTTTCAATGGCAAAATTAAGGTTTTTTTTTCTTGAAGAGATAATGAAG  
 CACTCACCAAGATATTTGAAACAACAAGTTAACATTACAATGATTTCAAGAAAAACTAA  
 GAATATTTCCCTTACCTAAAACAAAAAAGGAATAATCCCTTTATGAGAGAAGAAAA  
 GAGAGACAGATTTTTAAATATTTGGATTCTTTAGCCCATATGGAATTAATAAAAAAAAA  
 AAACCTGGGGAGAGAACCACAAGGAGACCGAGAGAAAGAGAGAGATGCCTCTTGACATTT  
 TAAAGACCAAAAACCTTGACAGTTAAAATCCATTCCGAAAGTTTTTTACAACCTTACA  
 TTTACCTGCCCCAAAGCTCGTACCCGAGGAGACACCGATTCACTGCAGGATTTTATATAC  
 ATTA AACCTAAACTTAACCTCCCCAAATGAAATTGTAATACACAATGCCTGGCTAAAA  
 TTTTCTTTGCCCGGAAAAGGCCCTCCAAAACACATTTCCAGCATGCCGCCCCAC  
 ACCTTCAATGTCCCGGAACACCGTTCTCCACCCTCTCCACCCTTATTAACCGCGAAT  
 ACGTAACCAGGCCACTCCATTCTCTTG

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_004949

**Insert Size:**

4640 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>	<a href="#">NM_004949.2</a> , <a href="#">NP_004940.1</a>
<b>RefSeq Size:</b>	5186 bp
<b>RefSeq ORF:</b>	2544 bp
<b>Locus ID:</b>	1824
<b>UniProt ID:</b>	<a href="#">Q02487</a>
<b>Cytogenetics:</b>	18q12.1
<b>Domains:</b>	CA
<b>Protein Families:</b>	Transmembrane
<b>Protein Pathways:</b>	Arrhythmogenic right ventricular cardiomyopathy (ARVC)
<b>Gene Summary:</b>	<p>This gene encodes a member of the desmocollin protein subfamily. Desmocollins, along with desmogleins, are cadherin-like transmembrane glycoproteins that are major components of the desmosome. Desmosomes are cell-cell junctions that help resist shearing forces and are found in high concentrations in cells subject to mechanical stress. This gene is found in a cluster with other desmocollin family members on chromosome 18. Mutations in this gene are associated with arrhythmogenic right ventricular dysplasia-11, and reduced protein expression has been described in several types of cancer. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Feb 2015]</p> <p>Transcript Variant: This variant (Dsc2b, also known as DGIII) contains an additional exon at the 3' end compared to transcript variant Dsc2a. This results in a frame-shift and a shorter isoform (Dsc2b) with a distinct C-terminus compared to isoform Dsc2a. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>