

## Product datasheet for **RC222207**

### Desmocollin 2 (DSC2) (NM\_004949) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Desmocollin 2 (DSC2) (NM_004949) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Desmocollin 2
Synonyms:	ARVD11; CDHF2; DG2; DGII/III; DSC3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide  
Sequence:**

>RC222207 representing NM\_004949  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGGCAGCCCGCCCTCCGGCTCCTGGAACGGAGCCCTCTGCCGGCTGCTCCTGCTGACCCCTCGCGA  
 TCTTAATATTTGCCAGTGATGCCTGCAAAAATGTGACATTACATGTTCCCTCCAAACTAGATGCCGAGAA  
 ACTTGTGGTAGAGTTAACCTGAAAGAGTGCTTTACAGCTGCAAACTAATTCATTCAAGTGATCCTGAC  
 TTCCAAATTTTGGAGGATGGTTCACTCTATAACAACAATACTATTCTATTGCTCCTCGGAGAAGAGAAGTT  
 TTACCATATTACTTTCCAACACTGAGAACAAGAAAAGAAGAAAATTTTGTCTTTTGGAGCATCAAAC  
 AAAGGTCTAAAGAAAAGACATACTAAAGAAAAGTTCTAAGGCGCGCCAAGAGAAGATGGGCTCCAATT  
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 AGTGGGCACTACTGTGGGACAAGTGTGTGCTACTGACAAAGATGAGCCTGACACGATGCACACACGCCTG  
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**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC222207 representing NM\_004949  
 Red=Cloning site Green=Tags(s)

MEAAPSGSWNGALCRLLLTLAILIFASDACKNVTLHVPSKLDAEKLVGRVNLKECF TAANLIHSSDPD  
 FQILEDGSVYTTNTILL SSEKRSFTILL SNTENQEKKKIFV FLEHQTKVLKRRHTKEKVLRRAKRRWAPI  
 PCSMLENSLGPFFLFLQQVQSDTAQNYTIYYSIRGPGVDQEPNLFYVERDTGNLYCTRPVDREQYESFE  
 IIAFATTPDGYTPELPLPLIIKIEDENDNYPIFTEETYFTIFENCRCRVGTTVGVQVCATDKDEPDTMHTRL  
 KYSGIIGQVPPSPTLFSMHPTTGVIITTSQDLRELDKYQLKIKVQMDGQYFGLQTTSTCIINIDDVND  
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 KPLNYEEKQQMILQIGVVNEAPFSREASPRSAMSTATVTVNVEDQDEGPECNPIQTVRMKENAEVGTTS  
 NGYKAYDPETRSSSGIRYKLLDPTGWVIDENTGSIKVFRLDREAETIKNGIYNIITV LASDQGGRTCT  
 GTLGII LQDVNDNSPFI PKKTVIICKPTMSSAEIVAVDPDEPIHGPPDFSL ESSTSEVQRMWRLKAIN D  
 TAARLSYQNDPPFGSYVVPITVRDLGMSVTSLDVTLDCITENDCTHRVDPRI GGGVQLGKWA I LAI  
 LLGIALLF CILFTLVCGASGTSKQPKVIPDDL AQQNLIVSNTEAPGDDKVYSANGFTTQT VGASAQGVCG  
 TVGSGIKNGGQETIEMVKGGHQ TSECRGAGHHHTLDSCRGGHTEVDNCRYTYSEWHSFTQPRLGEE SIR  
 GHTLIKN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6826\\_a03.zip](https://cdn.origene.com/chromatograms/mk6826_a03.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

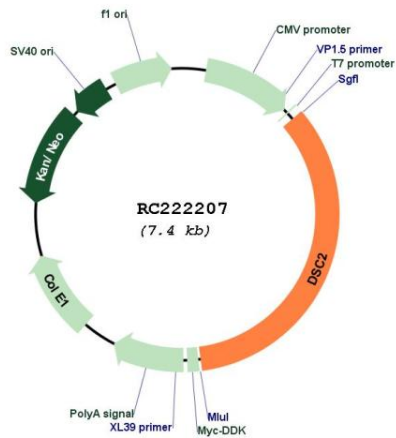
Cloning sites used for ORF Shuttling:



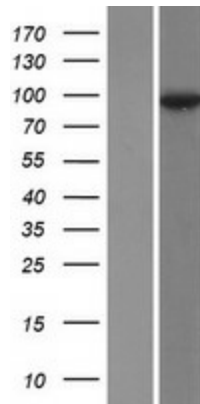
\* The last codon before the Stop codon of the ORF

<b>ACCN:</b>	NM_004949
<b>ORF Size:</b>	2541 bp
<b>OTI Disclaimer:</b>	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. <a href="#">More info</a>
<b>OTI Annotation:</b>	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_004949.5</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>MW:</b>	93.77 kDa
<b>Gene Summary:</b>	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]

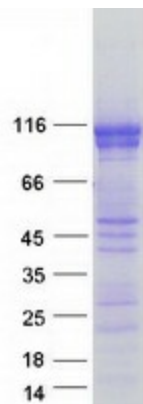
Product images:



Circular map for RC222207



Western blot validation of overexpression lysate (Cat# [LY417636]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222207 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified DSC2 protein (Cat# [TP322207]). The protein was produced from HEK293T cells transfected with DSC2 cDNA clone (Cat# RC222207) using MegaTran 2.0 (Cat# [TT210002]).