

## Product datasheet for RC205303

### GJA1 (NM\_000165) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GJA1 (NM_000165) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	GJA1
Synonyms:	AVSD3; CMDR; CX43; EKVP; EKVP3; GJAL; HLHS1; HSS; ODDD; PPKCA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC205303 representing NM_000165 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGTGACTGGAGCGCCTTAGGCAAACCTTTGACAAGGTTCAAGCCTACTCAACTGCTGGAGGGAAGG  
TGTGGCTGTCAGTACTTTTCATTTCCGAATCCTGCTGCTGGGGACAGCGGTTGAGTCAGCCTGGGAGA  
TGAGCAGTCTGCCTTTCGTTGTAACACTCAGCAACCTGGTTGTGAAAATGTCTGCTATGACAAGTCTTTC  
CCAATCTCTCATGTGCGCTTCTGGGCTCTGAGATCATATTTGTGTCTGTACCCACTCTTGTACCTGG  
CTCATGTGTTCTATGTGATGCGAAAGGAAGAGAAAAGTGAACAAGAAAGAGGAAGAACTCAAGTTGCCCA  
AACTGATGGTGTCAATGTGGACATGCACTTGAAGCAGATTGAGATAAAGAAGTTCAAGTACGGTATTGAA  
GAGCATGGTAAGGTGAAAATGCGAGGGGGTGTGCGAACCTACATCATCAGTATCCTCTTCAAGTCTA  
TCTTTGAGGTGGCCTTCTTGCTGATCCAGTGGTACATCTATGGATTACAGCTTGTGCTGTTTACTTGT  
CAAAGAGATCCCTGCCACATCAGGTGGACTGTTTCTCTCTCGCCCCACGGAGAAAACCATCTTCATC  
ATCTTCATGCTGGTGGTGCCTTGGTGTCCCTGGCCTTGAATATCATTGAACTCTTCTATGTTTTCTTCA  
AGGGCGTTAAGGATCGGGTTAAGGAAAAGAGCGACCTTACCATGCGACCAGTGGTGCCTGAGCCCTGC  
CAAAGACTGTGGTCTCAAAAATATGCTTATTTCAATGGCTGCTCCTACCAACCGCTCCCCTCTCGCT  
ATGTCTCTCTGGGTACAAGCTGGTACTGGCGACAGAAAATCTTCTTGGCCGAATTACAACAAGC  
AAGCAAGTGAGCAAAAAGTGGCTAATTACAGTGCAGAAAATCGAATGGGGCAGCGGGGAAGCACCAT  
CTCTAACTCCCATGCACAGCCTTTTGTATTTCCCGATGATAACCAGAATTCAAAAAAAGTCTGCTGGA  
CATGAATTACAGCCACTAGCCATTGTGGACCAGCGACCTCAAGCAGAGCCAGCAGTCTGCCAGCAGCA  
GACCTCGGCTGATGACCTGGAGATC

**ACGGT**ACGGCGCGCTCGAGCAGAAAACCTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC205303 representing NM\_000165  
Red=Cloning site Green=Tags(s)

MGDWSALGKLLDKVQAYSTAGGKVWLSVLFIFRILLGLTAVESAWGDEQSAFRCNTQQPGCENVCYDKSF  
 PISHVRFWVQLQIFVSVPTLLYLAVHFVYMRKEEKLNKKEEELKVAQTDGTVNMDMLKQIEIKKFKYIE  
 EHGVKMRGGLLRTYIISILFKSIFEVAFLLIQWYIYGFSLSAVYTKRDPCHQVDCFLSRPTEKIFIF  
 IFMLVSVLSLALNIIELFYVFFKGVKDRVKGKSDPYHATSGALSPAKDCGSQKYAYFNGCSSPTAPLSP  
 MSPPGYKLVTDGRNNSCRNKNQASEQNWANYSAEQNRMQAGSTISNSHAQPFDFPDDNQNSKKLAAG  
 HELQPLAIVDQRPSSRASSRASSRPRDDLEI

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg2620\\_d01.zip](https://cdn.origene.com/chromatograms/mg2620_d01.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000165

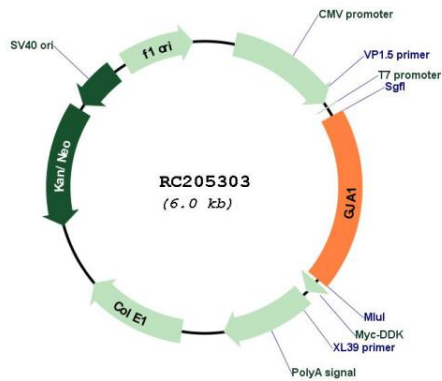
**ORF Size:** 1146 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

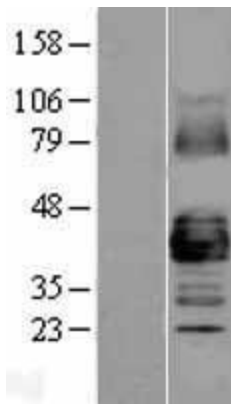
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_000165.5</a>
<b>RefSeq Size:</b>	3130 bp
<b>RefSeq ORF:</b>	1149 bp
<b>Locus ID:</b>	2697
<b>UniProt ID:</b>	<a href="#">P17302</a>
<b>Cytogenetics:</b>	6q22.31
<b>Domains:</b>	CNX, Connexin43
<b>Protein Families:</b>	Druggable Genome, Ion Channels: Other, Transmembrane
<b>Protein Pathways:</b>	Arrhythmogenic right ventricular cardiomyopathy (ARVC), Gap junction
<b>MW:</b>	42.8 kDa
<b>Gene Summary:</b>	This gene is a member of the connexin gene family. The encoded protein is a component of gap junctions, which are composed of arrays of intercellular channels that provide a route for the diffusion of low molecular weight materials from cell to cell. The encoded protein is the major protein of gap junctions in the heart that are thought to have a crucial role in the synchronized contraction of the heart and in embryonic development. A related intronless pseudogene has been mapped to chromosome 5. Mutations in this gene have been associated with oculodentodigital dysplasia, autosomal recessive craniometaphyseal dysplasia and heart malformations. [provided by RefSeq, May 2014]

Product images:



Circular map for RC205303



Western blot validation of overexpression lysate (Cat# [LY400061]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC205303 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).