

## Product datasheet for **MR230915**

### Jph2 (NM\_001205076) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Jph2 (NM_001205076) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Jph2
Synonyms:	1110002E14Rik; JP-2; Jp2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>MR230915 representing NM\_001205076  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGCGGGGCCGCTTTGACTTTGATGATGGCGGGCGTATTGTGGGGCTGGGAAGGGGAAAGGCAC  
 ACGGGCACGGACTGTGCACCGGCCCAAGGGCCAGGGTGAATACTCGGGCTCCTGGAATTTGGCTTTGA  
 AGTGGCAGGCGTCTATACCTGGCCCAAGTGGGAATACCTTTGAGGGATATTGGAGCCAGGGCAAACGACAT  
 GGGCTTGGCATAGAGACCAAGGGGCGCTGGCTCTACAAGGGGAGTGGACGCATGGCTTTAAGGGGCGCT  
 ACGGAATCCGGCAGAGCACAACAGTGGTGCCAAGTACGAGGGCACTTGAATAACGGCTACAGGACGG  
 CTATGGCAGGAGACCTACGCAGACGGAGAACCTATCAAGGCCAATTCACCAACGGCATGCGCCATGGC  
 TACGGTGTGCGCAAAGCGTGCCTACGGGATGGCAGTGGTGGTGCCTTCTCCGCTGCGCACTTCTCTGT  
 CCTCGCTGCGCAGCGAGCACAGCAATGGAACGGTGGCTCCGGACTCACCGCGGCAGATGGGCCATGCT  
 GCCTTCGCCCCAGTGCCTGCGCGGTGGTTTCGCGCTCACTCTGCTGGCCACAGCAGAGGGCCGCGCACCC  
 CAAGGGCTGTTACGCGTGGCACAACCTGCTGGGTGCGCTGCGACGCTCAGAATCACGCACATCACTGGGCA  
 GCCAGCGGAGCCGCTTGAAGCTTTCTCAAGAGCGAGCTGAGTTCGGAGCCAGCGATGCCGCATCCACTGG  
 CAGCTGGCCGAGGGCGCTGAGGGCCCCGACGACGCGGCTGCGCCCTTCGATGCCGACATCGACGCCACC  
 ACCACGGAAACCTACATGGGCGAGTGGGAAGCAAGCAGCGCTCGGGCTTCGGCGTGAGCGAGCGTTCCA  
 GCGGCTGCGCTACGAGGGCGAGTGGCTGGACAACCTGCGCCACGGCTACGGCCGACACGCTGCCCGA  
 CGGCCACCGGAGGAGGCAAGTACCGCCACAATGTGCTGGTCAAGGGCACCAGCGCCGCTGCTGCCG  
 CTAAGAGCAGCAAGTCCGCCAGAAGTGGAGCACGGGTGGAGGGCGCCAGCGCGCAGCAGCCATCG  
 GCGCCAGAAGGCCGAGATTGCCGCTCCAGGACAAGCCATGCCAAAGCCAAGGCAGAGGCAGCAGAACA  
 GGCTGCCCTGGCTGCCAACCAGGAGTCCAACATCGCCCGTACATTGGCCAAGGAGCTGGCTCCAGACTTC  
 TACCAGCCAGGTCCGGAGTATCAGAAGCGTCCGCTGCTCCAGGAGATCCTGGAGAATCTGAGAGCTTGC  
 TGGAGCCCCAGAGCGGGTCTGGGCACCGGCTCCCGGAGCGGCCCGGGAAAGCCGAGCTGCATGA  
 GCGCGAGACCCCGCAGCCGAGGGCGGACCCCGTCTCCGGCCGGGACGCCCCGCAACCCAAGAGGCC  
 CGGCCCGGAGCGTCAAAGGACGGCTGCTGAGTCCAGGCTCCTGGAACGGGGAGCCGGCGGAGAGGGCA  
 GCCGGCCGCCACGCGTCCGATGGCGCCGTCGTCGAGCCCCGCGCCCCGCTCGGAGCACATGGC  
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 AGCTACCGCTGCGCACCGGCCACCCGAGCCTCCGCCCTTGGAGGATGAGCAGGAGCCGAGCCGGAGC  
 CCGAGCCCGAGTCCGGCGATCCGACTCGGCGCCCCGCTCCCGCTCTCCGCCACCGTCCCGGAGGAGGA  
 GCCCCCTGCGCCGGAAGCCCGTGCCTGCCAAGCAAGCCACTCTGGAGCCCAAGCCATCGTCCCCAAA  
 GCAGAGCCCAAGGCCAAGGCGCAAGACAGAGGCCCGAGGACTGAGCAAGGCCGGTGCCAAGAAGAAGG  
 GCCGTAAGGAAGTGGCGCAGGCGAAGGAGGCCGAGGTGGAGGTGGAGGAGGTACCCAACACCGTCTCAT  
 CTGATGGTGATCTTGTGAACATCGGCTGGCTATCCTATTTGTTACCTCTGACT

AG**CGGACCC**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC  
 TGGATTACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR230915 representing NM\_001205076  
Red=Cloning site Green=Tags(s)

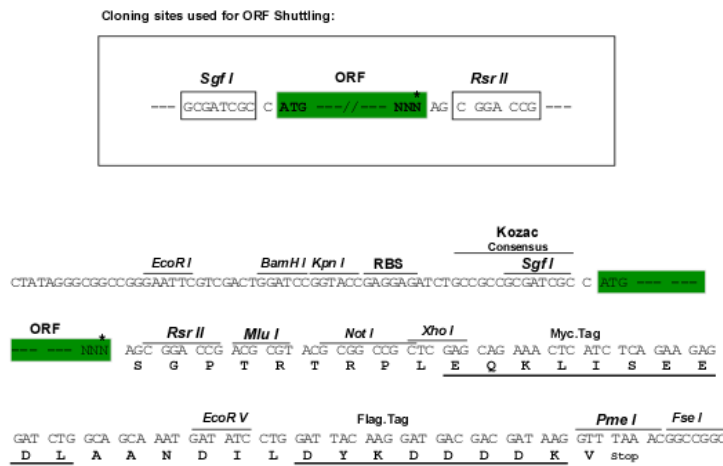
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MSGGRFDFFDDGGAYCGGWEGGKAHGHGLCTGPKGQGEYSGSWNFGFEVAGVYTWPSGNTFEGYWSQGRH
GLGIETKGRWL YKGEWTHGFKGRYGIROSTNSGAKYEGTWNNGLQDGYGTETADGGTYGQFTNGMRHG
YGVVRSVPYGMVAVVRSPLRTSLSSLRSEHNGTVAPDSPAADGPMLPSPVPRGGFAL TLLATAEAARP
QGLFTRGTL LGR LRRSESR TSLGSQRSL SFLKSELSSGASDAASTGSLAEGAEGPDDAAPFDADIDAT
TTETYMGEWKNDKRSFGVSESSGLRYEGEWLDNLRHGYGRTTLPDGHREEGKYRHNVLVKGTKRRVLP
LKSSKVRQKVEHGVGAQRAAAIARQKAEIAASRTSHAKAKAEAAEAALANQESNIARTLAKELAPDF
YQPGPEYQKRLLQEILENSELLEPPERGLGTGLPERPRESPQLHERE TPQPEGPPSPAGTPPQPKRP
RPGASKDGLLSPGSWNGEPGGESRPATPSDGARRSPARPAHEMIAEALQPPPAPSQEPEVAMYRGYH
SYAVRTGPPEPPLEDEQEPEPEPEVRRSDSAPPSPVSATVPEEPPAPRSPVPAKQATLEPKPIVPK
AEPKAKARKTEARGLSKAGAKKGRKEVAQAKEAEVEVEVPNTVLICMILLNIGLAILFVHLLT
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SGPTRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-RsrII

**Cloning Scheme:**



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

**ACCN:** NM\_001205076

**ORF Size:** 2088 bp

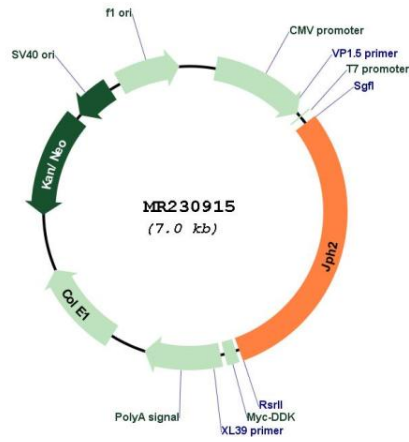
**OTI Disclaimer:** The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone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

**OTI Annotation:** This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

**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>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<u>NM_001205076.1, NP_001192005.1</u>
<b>RefSeq Size:</b>	4155 bp
<b>RefSeq ORF:</b>	2091 bp
<b>Locus ID:</b>	59091
<b>UniProt ID:</b>	<u>Q9ET78</u>
<b>Cytogenetics:</b>	2 H3
<b>MW:</b>	74.7 kDa
<b>Gene Summary:</b>	<p>Junctophilin-2: Membrane-binding protein that provides a structural bridge between the plasma membrane and the sarcoplasmic reticulum and is required for normal excitation-contraction coupling in cardiomyocytes (PubMed:10949023, PubMed:19095005, PubMed:21339484). Provides a structural foundation for functional cross-talk between the cell surface and intracellular Ca(2+) release channels by maintaining the 12-15 nm gap between the sarcolemma and the sarcoplasmic reticulum membranes in the cardiac dyads (PubMed:10949023, PubMed:19095005, PubMed:21339484). Necessary for proper intracellular Ca(2+) signaling in cardiac myocytes via its involvement in ryanodine receptor-mediated calcium ion release (PubMed:10949023, PubMed:19095005, PubMed:21339484). Contributes to the construction of skeletal muscle triad junctions (PubMed:10949023). [UniProtKB/Swiss-Prot Function]</p>

Product images:



Circular map for MR230915