

## Product datasheet for MC229497

### Jarid2 (NM\_001205044) Mouse Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Jarid2 (NM_001205044) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Jarid2
Synonyms:	Jmj; jumonji
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
Fully Sequenced ORF:	>MC229497 representing NM_001205044 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCCGCGATCGCC

ATGAGCAAGGAAAGACCCAAGAGGAATATCATTGAGAAGAAATACGATGACAGCGATGGGATCCCGTGGT  
CAGAAGAGAGAGTTGTACGAAAAGTCTGTATTTGTCCCTAAAGGAATCAAGAATGCACAGAAAAGGCA  
GCATGGGGAAGGCCTTGGCGGGAGCCTGAAGGCGGTAAATGGGCTTCTTGGTAATGCCAGGCTAAGGCA  
CTAGGACCAGCCTCAGAGCAGTCAGAGAACGAGAAGGATGATGCCTCCCAAGTGTCTCTACTAGCAACG  
ATGTTAGTTCTTCAGATTTTGAAGAAGGGCCGTCGAGGAAAAGGCCAGGCTGCAAGCACAAAGGAAGTT  
TGCTCAATCTCAGCCGAATAGTCCCAGCACAACTCCAGTGAAGATAGTGGAGCCTTTGCTACCCCGCCA  
GCTACTCAAATTTCTGACCTCTCTAAAAGGAAGCCTAAGACAGAAGACTTTCTTACCTTTCTCTGCCTTC  
GAGGTTCTCCTGCGCTGCCAACAGTATGGTATATTTGGAAAGCTCTCAGGATGAGGAGGATGTCGAAGA  
GGAAGATGATGAGACGGAAGATGTCAAAGCAACCACCAACAATGCTTCATCTTCGTGCCAGTCAACCCCC  
AGGAAAGGAAAAACCCATAAGCATGTACACAACGGCAGTTTTCAATGGCTCCAGTAGGTCAGCACGGG  
AGAAAGAGCCTGCTCACAACACAGAAGCAAAGAGGCCACTCCGGGGAAGGAGAAGCACAGCGAGCCCA  
GGCAGACAGCCGGAGAGAACAGGCTTCAGGGGCTCAGCCACGGCCGCTCGGCTGCGGCTTCTCTGCC  
AAGGGACTTGCTGCCAACCAACCTCCCCCTTCGCATCGGTCTGCTCAGGACTTACGGAACAGGTGT  
CTAAGGTAATGGAGTCACTCGAATGTCATCTCTGGGTGCAGGTACAAACAGTGCCAAAAAGATCCGAGA  
AGTCAGACCTTACCATCCAAAAGTGTGAAGTACACTGCCACAGTGACCAAGGGGACTGTACATACACC  
AAAGCCAAGAGAGAACTGGTCAAGGAAACCAACCAACCACCACAAACCAAGTTTCAAGTGTCAACCACA  
CAATCTCAGGGAAAAGTGAAGTAGCAATGCAAAAACCCGCAACAGGTGCTATCCCTTGGGGGGCGTC  
CAAGTCCACCGGGCCTGCTGCCAGTGGCCTCAAGGCCAGCAGGTTGAACCAAGTGCATGCACTAAG  
GAGGTGGGGGGGGCAGCTGAGGGAGGGGCTGCGGAATTCAAAAGGAGACTGGAAGAGGCACAGCAAG  
TGGACAAGCCGAGTCAACCCCAAGAAGATGAAGGGGGTGGCAGGCAATGCTGAAGCCCTGGCAAAAA  
GGCCTCAGCGGCTTCAAGGAGAAAAGTCTCTGCTGAATGGACAGTGAAGAAGGAAGTGCCCGAGCGAAGT  
TTGAAAGGAATCGGCCAAAGCGGGCCGCGGCTGGCAAGAATATGCTGGGCAAAACAGCACATGGCAAGA



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CAGAGGGCACCCCTGTGAAAATCGTTCTACCTCGCAACCCGAGTCTCGCACAAAGCCGATGACCCACA  
 GGGCAAGCCAGAGAAGGGGAGCGGCAAGTCTGGGTGGGCAGCGATGGACGAGATCCCTGTCTCAGGCC  
 TCCGCCAAGGAGTTCCACGACCCGCTCATCTACATCGAGTCAGTACGTGCTCAGGTGGAGAAGTACGGGA  
 TGTGTGCGGTGATCCCCCTCCAGACTGGCGGCCAGAGTGAAGTCAACGATGAGATGCGCTTTGTAC  
 GCAGATCCAGCACATCCATAAGCTGGCCGGCGCTGGGGCCCCAACGTGCAGCGGCTAGCCTGCATAAAG  
 AAGCACCTCAGATCTCAGGGCATCACCATGGATGAGTCCCCCTCATAGGAGGCTGTGAGCTCGACCTGG  
 CCTGCTTTTTCCGGCTGATTAATGAGATGGCGGCATGCAGCAAGTACTGACCTCAAAAAATGGAACAA  
 ACTAGCAGACATGCTGCGCATTCCCAAACTGCCAGGACCGGCTGGCCAAGCTGCAGGAGCCTACTGC  
 CAGTACCTGCTTTCCTATGACTCCCTGTCCCCGAGGAGCACCGACGGCTGGAGAAGGAGGTGCTGATGG  
 AGAAGGAGATCTGAAAAGCGCAAAGGCCATTAGAGGGGCACACGGAGAGCGACCACCACAAGTTCCA  
 CTCCCTGCCCGCTTTGAGCCAAAGAAATGGGCTCGTCCACGGTGTACACCTAGGAATGGATTCCGTAGC  
 AAGCTCAAGGAGGTGGCCGGGCCCCACTGAAGACGGGCCGGCGGCTGTTGCTCAGAAAAAGAAAG  
 TGGTCAAAGAGGAGGAAGAAGACAAAGGTGCTCAATGACTTCCACAAGTGCATCTATAAGGGAAGATC  
 TGTTTCTCTAACAACTTTTTATCGAACAGCAAGAAACATCATGAACATGTGTTTCAGCAAGGAGCCCGCA  
 CCAGCAGAGATTGAGCAAGACTGAGGTTAGTGAAGAGAAGGACTGTCATGTGGCAGTTCACTGCG  
 GAAAGGTGGACACTAATACCCATGGCAGCGGGTCCCGGTGGGAAAATCAGAACCCTTTTCAAGGCATGG  
 ATGGAACCTCACTGTCTCCCAAATAACACAGGGTCCATCCTGCGTCACCTTGGTGTGCTGCTGGAGTG  
 ACTATTCCTGGCTAAATATTGGCATGGTCTTTTCTACCTCATGCTGGTCTCGAGACCAAAATCACCTTC  
 CATATATTGACTACTTACACACTGGTGTGACTGCATTTGGTATTGCATTCTGCTGAGGAGGAGAACAA  
 GCTGGAGGACGTAGTCCACACTGTGTCAGGGCAATGGTACCCAGGGCTGCAGATGCTGGAGAGCAAT  
 GTAATGATCTCCCAGAGGTGCTGTGCAAGAAGGGGATCAAGTCCACAGGACTGTACAGCAGAGTGGGC  
 AGTTTGTGCTGCTTCCCGGATCCTTGTGTCCAAGTATGTTGTGGCTACAACGTCTCAGAGACAGT  
 GCATTTTGTACCACCCAGTGGACAAGCATGGGCTTCGAGACTGCCAAGGAGATGAAGCGCCGCATATA  
 GCTAAGCCATTCTCCATGGAGAAGTTGCTCTACCAGATTGCACAAGCAGAAGCAAAAAAGGAAAATGGTC  
 CCACCCTCAGTACCATCTCAGCCCTTCTGGATGAGCTCAGGGATACAGAGCTGCGGCAGCCAGGCTGTT  
 GTTCGAGGCTGGCCTTCACTCTTCTGCACGCTATGGCAGCCACGACGGCAACAGCACAGTGGCGGATGGG  
 AAGAAAAAGCCTCGAAAGTGGCTACAGCTGGAACTTCAGAAAGGAGGTGCCAGATCTGCCAGCACTGT  
 GCTACCTGTCCATGGTGTACAGGAGAATGAGAATGTCGTGTTCTGCCTGGAGTGTGCACTGCGCCATGT  
 GGAGAAGCAGAAGTCTTCCGTTGGGCTGAAGCTGATGTACCGCTACGATGAGGAGCAGATCATCAGTTG  
 GTCACCAGATATGTGGCAAAGTGTCTGGCAAACCGGTGGCATCGAAGTGTCTCAACAAACCCACAC  
 CAAAAAGAGGTCCCCGCAAGAGAGCGACCGTGGATGTGCCCCATCTCGGCTCCCATCTCATGA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

- Restriction Sites:** SgfI-MluI
- ACCN:** NM\_001205044
- Insert Size:** 3705 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).
- OTI Annotation:** Clone contains native stop codon, and expresses the complete ORF without any c-terminal tag.
- 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).

**Reconstitution Method:**

1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
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.

**RefSeq:** [NM\\_001205044.1](#), [NP\\_001191973.1](#)

**RefSeq Size:** 5670 bp

**RefSeq ORF:** 3705 bp

**Locus ID:** 16468

**UniProt ID:** [Q62315](#)

**Cytogenetics:** 13 21.66 cM

**Gene Summary:** Regulator of histone methyltransferase complexes that plays an essential role in embryonic development, including heart and liver development, neural tube fusion process and hematopoiesis. Acts by modulating histone methyltransferase activity and promoting the recruitment of histone methyltransferase complexes to their target genes. Binds DNA and mediates the recruitment of the PRC2 complex to target genes in embryonic stem cells. Does not have histone demethylase activity but regulates activity of various histone methyltransferase complexes. In embryonic stem cells, it associates with the PRC2 complex and inhibits trimethylation of 'Lys-27' of histone H3 (H3K27me3) by the PRC2 complex, thereby playing a key role in differentiation of embryonic stem cells and normal development. In cardiac cells, it is required to repress expression of cyclin-D1 (CCND1) by activating methylation of 'Lys-9' of histone H3 (H3K9me) by the GLP1/EHMT1 and G9a/EHMT2 histone methyltransferases. Also acts as a transcriptional repressor of ANF via its interaction with GATA4 and NKX2-5. Participates in the negative regulation of cell proliferation signaling. [UniProtKB/Swiss-Prot Function]

Transcript Variant: This variant (3) differs in the 5' UTR, compared to variant 1. Variants 1, 2 and 3 encode the same isoform (1). Sequence Note: The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.