

Product datasheet for **MG222802**

Jarid2 (NM_021878) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Jarid2 (NM_021878) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Jarid2
Synonyms:	Jmj; jumonji
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG222802 representing NM_021878 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGCAAGGAAAGACCCAAGAGGAATATCATTGAGAAGAAATACGATGACAGCGATGGGATCCCGTGGT
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CAAAAAGAGGTCCCCGAAGAGAGCGACCGTGGATGTGCCGCATCTCGGCTCCCATCTCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >MG222802 representing NM_021878
 Red=Cloning site Green=Tags(s)

MSKERPKRNIIQKKYDSDGIPWSEERVVRKVL YL SLKEFKNAQKRQHGEGLAGSLKAVNGLLGNAQAKA
 LGPASEQSENEKDDASQVSSTSNVSSSDFEEGPSRKRPRLQAQRKFAQSQPNPSTTPVKIVEPLLPPP
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 KGLAANHQP PPSHRSAQDLRQVSKVNGVTRMSSLGAGTNSAKKIREVRPSPSKTVKYTATVTKGTVTYT
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 PAEIEQEYWRLV EEKDCHVAVHCGKVDNTNTHGSGFPVKGSEPF SRHGWNLT VLPNNTGSILRHLGAVPGV
 TIPWLNIGMVFSTSCWSRDQNHLPYIDYLHTGADCIWYCI PAEEENKLEDVVHTLLQGNNGTPGLQMLESN
 VMI SPEVLCKKGIKVHRTVQQSQGFVVCFPGSFVSKVCCGYNVSETVHFATTQWTSMGFETAKEMKRRHI
 AKPFSMEKLLYQIAQAEAKKENGPTLSTISALLDEL RDTEL RQRRLFEAGLHSSARYGSHDGNSTVADG
 KKKPRKWLQLET SERRCQICQHLCYLSMVVQENENVVFCLECALRHVEKQKSCRGLKLMRYRDEEQIISL
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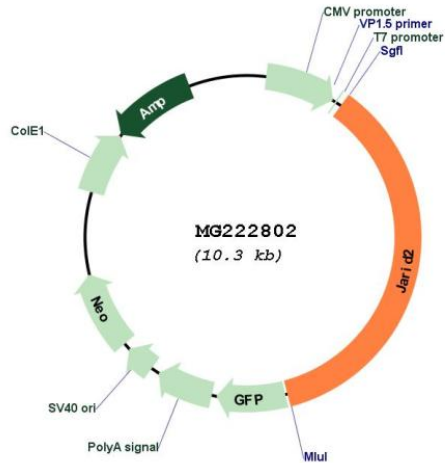
TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:


ACCN: NM_021878

ORF Size: 3702 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).

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_021878.3](#), [NP_068678.1](#)

RefSeq Size: 5716 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]