

## Product datasheet for MR206596

### PPP4r2 (BC056340) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PPP4r2 (BC056340) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PPP4r2
Synonyms:	BE691708; C230060M08Rik
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR206596 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGACGTCGAGAGGCTGCAGGAGGCGCTGAAAGATTTTGAGAAGAGAGGGAAAAAGGAAGTTTGCCTG  
TACTGGATCAGTTTCTGTGATGTAGCTAAAAGTGGAGAAACAATGATTCAGTGGTCCCAATTTAAAGG  
CTATTTTCATTTTCAAAGTGGAGAAAGTGGATGATTTTCAGAACTTCAGCTCCTGAACCAAGAGGTCT  
CCCAATCCTAATGTTGAATATATCCCTTTGATGAAATGAAGGAAAGAATACTGAAAATTGTCAGTGGAT  
TTAATGGTATCCCTTTACTATTAGCGGCTATGTGAATTGCTAACGGATCCGAGAAGAACTATACAGG  
AACAGACAAGTTTCTCAGAGGAGTAGAGAAGAATGTGATGGTTGTAGCTGCGTTTGTCCATCCTCAGAG  
AAGAACAATTCTAATAGCTTAAATAGAATGAATGGTGTATGTTTCTGGAAACTCACCAAACTATACTG  
ACAGGTCTAATATAAACGGGCTGGAACACCTAGGCCACTTAATCGACCAAGCTTTCTTTGTCAGCCCC  
CTTGACAACAAATGGTTTGCCTGAGAGCACAGATAGCAAAGATTCGAGCTGCAGCTAAGTGAAGAGAAA  
GGCCACAGTGATTTCTCAGCCTCTGAATCAGAAGTTTCTTACTGAGCCCTGTTAAAAATAACATCCAG  
ATGAAGATGCTGTGGAGTCTGAGGAACATGAGGTGAAAAGACTGAAGTTTGACAAAGAAGGTGACGTCAG  
AGAGACAGCTAGCCAAACGGTGTCTGGTGAAGTCTCTTCAGTTAGAGCAGAGGAAACGGAACAGCAGCT  
CCCCCTCTGACAAGGACAGAGAAGTGAACCCAGGCAGCACTGTACAGAAGAGGAGGAGGAGGAGGAGG  
AAGAAGAGGAAGAGGAGGAGGAAGAATCGTTTATGACACCAAGAGAAATGGTCCCAGAAAAGAAAAATCA  
AGAAAAGGAATCTGATGACGCCCTTAACTGTGAATGAAGAGACTTCAGAGGAGAGCCATCAGATGGAAGGC  
TCTGGTGTGCTCCAGCTCAGACAGACTCCACTTCAGAAAGGAGTGCAGTGCAGGGCCTCAAGGAGTG  
GCTCTGACTGCCTGGAGACACAGGAGTCAAGAGGGCCCCCTTCCAGTAAGACTGGAGAGAGTGTGTCAGT  
GCCGTCGTCATGGAGAGTGAGGAAGCCGAGAAGTCACAGATGACCCAATGGAGCAAGAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR206596 protein sequence  
Red=Cloning site Green=Tags(s)

MDVERLQEALKDFEKRKKEVCPVLDQFLCHVAKTGETMIQWSQFKGYFIFKLEKVMDDFRTSAPEPRGP  
 PNPVVEYIPFDEMKERILKIVTGFNGIPFTIQRLCELLTDP RRNYTGTKFLRGVEKNVMVSVSCVPSSE  
 KNNSNSLNRMGVMFPGNSPNYTD RSNINGP GTPRPLNRPKLSLAPLTTNGLPESTDSKDSELQLSEEK  
 GHSDSSASESEVSL LSPVKNKHPDEDAVESEEHEVKRLKFDKEGDVRETASQTVSGEVSSVRAEETETA  
 A PPPDKDRESRTRQHCTEEEEEEEEEEEEEEEEESFMTPREMVPERKNQEKE SDDALTVNEETSEESHQMEG  
 SGVSPAQT DSTSERSDSAGASRSGSDCLETQESGGPPSSKTGESVSVSSMESEEA AEVTD DDPMEQD

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



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

**ACCN:** BC056340

**ORF Size:** 1251 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:** [BC056340](#), [AAH56340](#)

**RefSeq Size:** 2769 bp

**RefSeq ORF:** 1253 bp

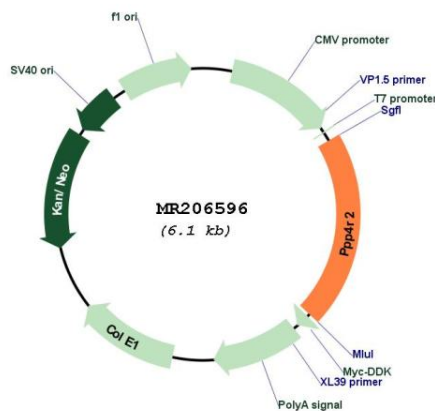
**Locus ID:** 232314

**Cytogenetics:** 6 D3

**MW:** 46.4 kDa

**Gene Summary:** Regulatory subunit of serine/threonine-protein phosphatase 4 (PP4). May regulate the activity of PPP4C at centrosomal microtubule organizing centers. Its interaction with the SMN complex leads to enhance the temporal localization of snRNPs, suggesting a role of PPP4C in maturation of spliceosomal snRNPs. The PPP4C-PPP4R2-PPP4R3A PP4 complex specifically dephosphorylates H2AFX phosphorylated on 'Ser-140' (gamma-H2AFX) generated during DNA replication and required for DNA double strand break repair (By similarity). Mediates RPA2 dephosphorylation by recruiting PPP4C to RPA2 in a DNA damage-dependent manner. RPA2 dephosphorylation is required for the efficient RPA2-mediated recruitment of RAD51 to chromatin following double strand breaks, an essential step for DNA repair (By similarity). [UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR206596