

## Product datasheet for **RC220271**

### PPP2R2B (NM\_004576) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PPP2R2B (NM_004576) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PPP2R2B
Synonyms:	B55BETA; PP2AB55BETA; PP2ABBETA; PP2APR55B; PP2APR55BETA; PR2AB55BETA; PR2ABBETA; PR2APR55BETA; PR52B
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC220271 representing NM\_004576  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGAGGAGGACATTGATACCCGAAAAACAACAACGTTTCTGCGCGACCACAGCTATGCGACCGAAG  
 CTGACATTATCTCTACGGTAGAATCAACCACACGGGAGAATTACTAGCGACAGGGGACAAGGGGGTCTG  
 GGTTGTAATATTTCAACGAGAGCAGGAGAGTAAAAATCAGGTTTCATCGTAGGGGTGAATACAATGTTTAC  
 AGCACATTCAGAGCCATGAACCCGAGTTCGATTACCTGAAGAGTTTAGAAATAGAAGAAAAATCAATA  
 AAATAAGATGGCTCCCCAGCAGAAATGCAGCTTACTTTCTGTCTACTAATGATAAACTGTGAAGCT  
 GTGGAAAGTCAGCGAGCGTGATAAGAGGCCAGAAGGCTACAATCTGAAAGATGAGGAGGGCCGGCTCCGG  
 GATCCTGCCACCATCACAAACCTGCGGGTGCCTGTCTGAGACCCATGGACCTGATGGTGGAGGCCACCC  
 CACGAAGAGTATTTGCCAACGCACACACATATCACATCAACTCCATATCTGTCAACAGCGACTATGAAAC  
 CTACATGTCGGCTGATGACCTGAGGATTAACCTATGGAACCTTTGAAATAACCAATCAAAGTTTTAATATT  
 GTGGACATTAAGCCAGCCAACATGGAGGAGCTCACGGAGGTGATCACAGCAGCCGAGTTCACCCCCATC  
 ATTGCAACACCTTCGTGTACAGCAGCAGCAAAGGGACAATCCGGCTGTGTGACATGCGGGCATCTGCCCT  
 GTGTGACAGGCACACCAAATTTTTGAAGAGCCGGAAGATCCAAGCAACAGATCATTTTTCTCTGAAATT  
 ATCTCTTCGATTCGGATGTGAAGTTCAGCCACAGTGGGAGGTATATCATGACCAGGGACTACTTGACCG  
 TCAAAGTCTGGGATCTCAACATGGAAAACCGCCCATCGAGACTACCAGGTTTCATGACTACCTCCGCAG  
 CAAGCTGTGTTCCCTCTATGAAAATGACTGCATTTTTGATAAATTTGAGTGTGTGGAATGGGTGACAG  
 AGTGTGATCATGACAGGCTCTACAACAACCTTCTCAGGATGTTGACAGAAACCAAGCGTGTGTGTTGGGGG  
 CCCTTGAGGCTTCGAGGAAAACAGCAAGCCCGGGCTATCCTCAAACCCGAAAAGTGTGTGTGGGGGG  
 CAAGCGGAGAAAAGACGAGATCAGTGTGACAGTCTGGACTTTAGCAAAAAGATCTTGCATACAGCTTGG  
 CATCCTTCAGAAAATATTATAGCAGTGGCGGCTACAAATAACCTATATATATTCCAGGACAAGGTTAAC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC220271 representing NM\_004576  
 Red=Cloning site Green=Tags(s)

MEEDIDTRKINNSFLRDHSYATEADIISTVEFNHTGELLATGDKGGRVVFQREQESKNQVHRRGEYNVY  
 STFQSHEPEFDYLSLEIEEKINKIRWLPQQAAYFLLSTNDKTVKLWVSRDKRPEGYNLKDDEGRLLR  
 DPATITTLRVPVLRPMDLMVEATPRRVFANAHTYHINSISVNSDYETYMSADDLRINLWNFEITNQSFNI  
 VDIKPANMEELTEVITAAEFHPHCNTFFVYSSSGTIRLCDMRASALCDRHTKFFEEPEDPSNRSFFSEI  
 ISSISDVKFSHSGRYIMTRDYLTVKVDLNMENRPIETYQVHDYLRSLKLSLYENDCIFDKFECVWNGSD  
 SVIMTGSYNNFFRMFDRNTRKRDVTLASRENSKPRAILKPRKVCVGGKRRKDEISVDSLDFSKKILHTAW  
 HPSENIIAVAATNNLYIFQDKVN

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

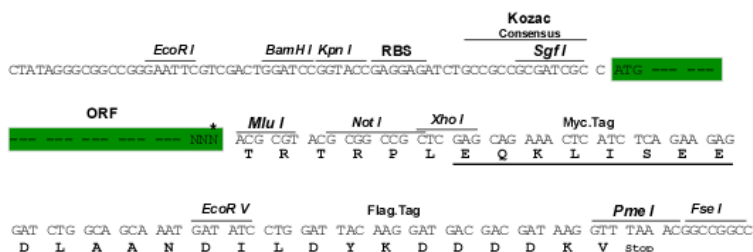
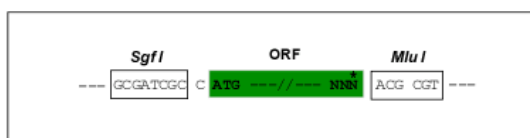
[https://cdn.origene.com/chromatograms/mk8077\\_c05.zip](https://cdn.origene.com/chromatograms/mk8077_c05.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**

Cloning sites used for ORF Shutting:



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

**ACCN:** NM\_004576

**ORF Size:** 1329 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\\_004576.2](#), [NP\\_004567.1](#)

**RefSeq Size:** 2300 bp

**RefSeq ORF:** 1331 bp

**Locus ID:** 5521

**Cytogenetics:** 5q32

**Domains:** WD40

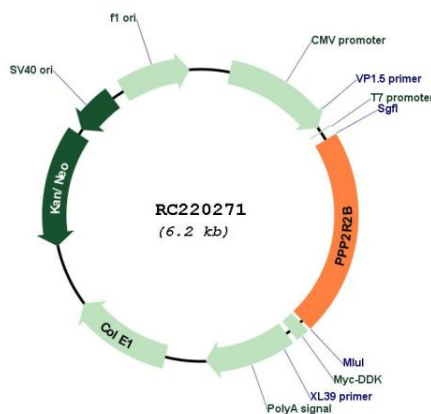
**Protein Families:** Druggable Genome, Phosphatase

**Protein Pathways:** Tight junction

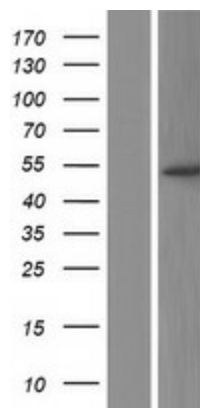
**MW:** 51.5 kDa

**Gene Summary:** The product of this gene belongs to the phosphatase 2 regulatory subunit B family. Protein phosphatase 2 is one of the four major Ser/Thr phosphatases, and it is implicated in the negative control of cell growth and division. It consists of a common heteromeric core enzyme, which is composed of a catalytic subunit and a constant regulatory subunit, that associates with a variety of regulatory subunits. The B regulatory subunit might modulate substrate selectivity and catalytic activity. This gene encodes a beta isoform of the regulatory subunit B55 subfamily. Defects in this gene cause autosomal dominant spinocerebellar ataxia 12 (SCA12), a disease caused by degeneration of the cerebellum, sometimes involving the brainstem and spinal cord, and in resulting in poor coordination of speech and body movements. Multiple alternatively spliced variants, which encode different isoforms, have been identified for this gene. The 5' UTR of some of these variants includes a CAG trinucleotide repeat sequence (7-28 copies) that can be expanded to 55-78 copies in cases of SCA12. [provided by RefSeq, Jul 2016]

**Product images:**



Circular map for RC220271



Western blot validation of overexpression lysate (Cat# [LY426765]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225726] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).