

Product datasheet for **RC222690**

PPP2R2B (NM_181678) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PPP2R2B (NM_181678) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PPP2R2B
Synonyms:	B55BETA; PP2AB55BETA; PP2ABBETA; PP2APR55B; PP2APR55BETA; PR2AB55BETA; PR2ABBETA; PR2APR55BETA; PR52B; PR55-BETA; PR55BETA; SCA12
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC222690 representing NM_181678
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAATTATCCAGATGAAAAACCTATGAAAAAAGCTGACATTATCTCTACGGTAGAATTC AACCCACA
 CGGGAGAATTACTAGCGACAGGGGACAAGGGGGTTCGGTTGTAATATTTCAACGAGAGCAGGAGAGTAA
 AAATCAGGTTTCATCGTAGGGTGAATACAAATGTTTACAGCACATTCCAGAGCCATGAACCCGAGTTCGAT
 TACCTGAAGAGTTTAGAAATAGAAGAAAAAATCAATAAAAATAAGATGGCTCCCCAGCAGAATGCAGCTT
 ACTTTCTTCTGTCTACTAATGATAAACTGTGAAGCTGTGAAAAGTCAGCGAGCGTGATAAGAGGCCAGA
 AGGCTACAATCTGAAAGATGAGGAGGGCCGGCTCCGGGATCCTGCCACCATCACAAACCTGCGGGTGCCT
 GTCCTGAGACCCATGGACCTGATGGTGGAGGCCACCCACGAAGAGTATTGCCAACGCACACACATATC
 ACATCAACTCCATATCTGTCAACAGCGACTATGAAACCTACATGTCGGCTGATGACCTGAGGATTAACCT
 ATGGAACTTTGAATAACCAATCAAAGTTTAAATATTGTGGACATTAAGCCAGCCAACATGGAGGAGCTC
 ACGGAGGTGATCAGCAGCCGAGTTCACCCCATCATTGCAACACCTTCGTGTACAGCAGCAGCAAAAG
 GGACAATCCGGCTGTGTGACATCGGGCATCTGCCCTGTGTGACAGGCACACAAATTTTTTGAAGAGCC
 GGAAGTCCAAGCAACAGATCATTTTTCTCTGAAATTATCTTTCGATTCGGATGTGAAGTTACAGCCAC
 AGTGGGAGGTATATCATGACCAGGGACTACTTGACCGTCAAAGTCTGGGATCTCAACATGGAAAACCGCC
 CCATCGAGACTTACCAGGTTTCATGACTACCTCCGAGCAAGCTGTGTTCCCTCTATGAAAATGACTGCAT
 TTTTGATAAATTTGAGTGTGTGGAATGGGTGAGACAGTGTATCATGACAGGCTCCTACAACAACTTC
 TTCAGGATGTTTCGACAGAAAACCAAGCGTGTGTGGGGGCAAGCGGAGAAAAGACGAGATCAGTGTGACAG
 GGGTATCCTCAAACCCGAAAAGTGTGTGGGGGCAAGCGGAGAAAAGACGAGATCAGTGTGACAG
 TCTGGACTTTAGCAAAAAGATCTTGCATACAGCTTGGCATCCTTCAGAAAATATTATAGCAGTGGCGGCT
 ACAATAACCTATATATATTCCAGGACAAGTTAAC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC222690 representing NM_181678
 Red=Cloning site Green=Tags(s)

MNYPDENTYGNKADIISTVEFNHTGELLATGDKGGRVVFQREQESKNQVHRRGEYNVYSTFQSHEPEFD
 YLKSLEIEEKINKIRWLPQQNAAYFLLSTNDKTVKLWKVSRDKRPEGYNLKDEEGRLRDPATITTLRVP
 VLRPMDLMVEATPRRVFANAHTYHINSISVNSDYETYMSADDLRINLWNFEITNQSFNIVDIKIPANMEEL
 TEVITAAEFPHHCNTFVYSSSGTIRLCDMRASALCDRHTKFFEEPEDPSNRSFFSEIISSISDVKFSH
 SGRYIMTRDYLTVKVWDLNMENRPIETYQVHDYLRSLKLSLYENDCIFDKFECVWNGSDSVIMTGSYNNF
 FRMFDNRNKRVDLTLEASRENSKPRAILKPRKVCVGGKRRKDEISVDSLDFSKKILHTAWHPSENIIVAA
 TNNLYIFQDKVN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk8059_e05.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_181678

ORF Size: 1296 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_181678.2](#), [NP_858064.1](#)

RefSeq Size: 2020 bp

RefSeq ORF: 1299 bp

Locus ID: 5521

UniProt ID: [Q00005](#)

Cytogenetics: 5q32

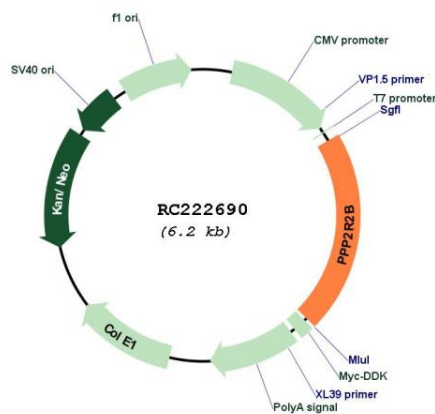
Protein Families: Druggable Genome, Phosphatase

Protein Pathways: Tight junction

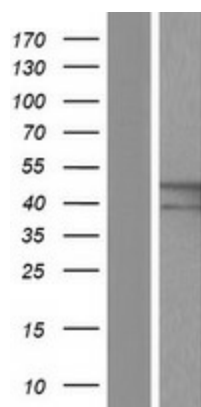
MW: 50.2 kDa

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 RC222690



Western blot validation of overexpression lysate (Cat# [LY405667]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC222690 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).