

Product datasheet for RC201334

PP2A-alpha (PPP2CA) (NM_002715) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PP2A-alpha (PPP2CA) (NM_002715) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	PP2A-alpha
Synonyms:	NEDLBA; PP2Ac; PP2CA; PP2Calpha; RP-C
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201334 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACGAGAAGGTGTTACCAAGGAGCTGGACCAGTGGATCGAGCAGCTGAACGAGTGCAAGCAGCTGT
CCGAGTCCCAGGTCAAGAGCCTCTGCGAGAAGGCTAAAGAAATCCTGACAAAAGAATCCAACGTGCAAGA
GGTTCGATGTCCAGTTACTGTCTGTGGAGATGTGCATGGGCAATTCATGATCTCATGGAAGTGTTAGA
ATTGGTGGCAAAACACCAGATACAAATTACTTGTATGGGAGATTATGTTGACAGAGGATATTATTCAG
TTGAAACAGTTACTGCTTGTAGCTCTTAAGGTCGTTACCGTGAACGCATCACCATTCTCGAGGGAA
TCATGAGAGCAGACAGATCACACAAGTTTATGGTTTCTATGATGAATGTTAAGAAAATATGAAAATGCA
AATGTTTGGAAATATTTACAGATCTTTTTGACTATCTTCTCTCACTGCCTTGGTGGATGGGCAGATCT
TCTGTCTACATGGTGGTCTCTCGCCATCTATAGATACACTGGATCATATCAGAGCACTTGATCGCCTACA
AGAAGTCCCCATGAGGGTCCAATGTGTGACTTGTCTGGTCCAGATGACCGTGGTGGTGGGGT
ATATCTCTCGAGGAGCTGGTTACACCTTTGGGCAAGATATTTCTGAGACATTTAATCATGCCAATGGCC
TCACGTTGGTGTCTAGAGCTCACCAGCTAGTGATGGAGGGATATAACTGGTGCCATGACCGGAATGTAGT
AACGATTTTCAGTGCTCCAACTATTGTTATCGTTGTGGTAACCAAGCTGCAATCATGGAAGTGGACGAT
ACTCTAAAATACTTTTTCAGTTTGACCCAGCACCTCGTAGAGGCGAGCCACATGTTACTCGTCGTA
CCCCAGACTACTTCTCTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC201334 protein sequence
Red=Cloning site Green=Tags(s)

MDEKVFTEKLDQWIEQLNECKQLSESQVKSLCEKAKEILTKESNVQEVRCPVTVCGDVHGQFHDLMELEFR
 IGKSPDTNYLFMGDYVDRGYYSVETVLLVALKVRYRERITILRGNHESRQITQVYGFYDECLRKYGNA
 NVWKYFTDLFDYLPLTALVDGQIFCLHGGLSPSIDTLDIRALDRLQEVPEHGPMCDLLWSDPDRGGWG
 ISPRGAGYTFGQDISETFNHANGLLVSRHQQLVMEGYNWCHDRNVVTFIF SAPNYCYRCGNQAAIMELDD
 TLKYSFLQFDPAPRRRGEHVTRTRTPDYFL

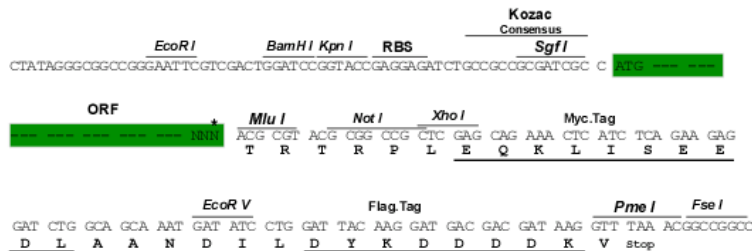
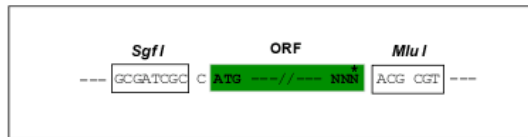
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6084_e02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_002715

ORF Size: 927 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_002715.4](#)

RefSeq Size: 2643 bp

RefSeq ORF: 930 bp

Locus ID: 5515

UniProt ID: [P67775](#)

Cytogenetics: 5q31.1

Domains: Metallophos, PP2Ac

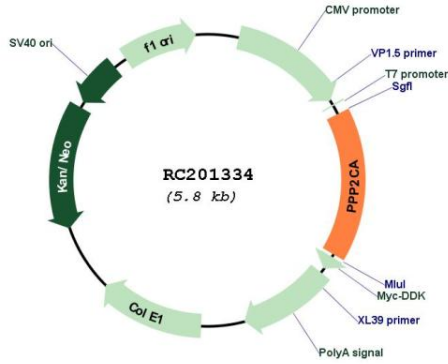
Protein Families: Druggable Genome, Phosphatase, Transcription Factors

Protein Pathways: Long-term depression, Oocyte meiosis, TGF-beta signaling pathway, Tight junction, Wnt signaling pathway

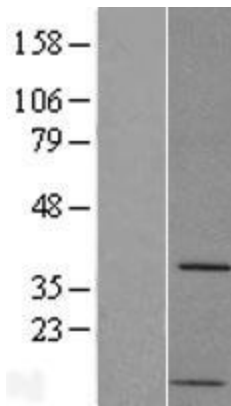
MW: 35.6 kDa

Gene Summary: This gene encodes the phosphatase 2A catalytic subunit. Protein phosphatase 2A 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. This gene encodes an alpha isoform of the catalytic subunit. [provided by RefSeq, Jul 2008]

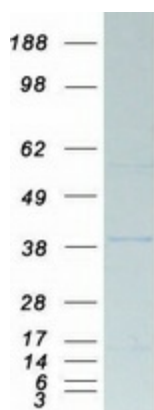
Product images:



Circular map for RC201334



Western blot validation of overexpression lysate (Cat# [LY419151]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201334 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PPP2CA protein (Cat# [TP301334]). The protein was produced from HEK293T cells transfected with PPP2CA cDNA clone (Cat# RC201334) using MegaTran 2.0 (Cat# [TT210002]).