

Product datasheet for **RC221048**

PPP2R2D (NM_001003656) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: PPP2R2D (NM_001003656) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: PPP2R2D
Synonyms: MDS026
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC221048 representing NM_001003656
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGAGCTGACCGAAGTCATCACTGCAGCCGAGTTCACCCGCACCAGTGCAACGTGTTCTGTCTACA
GCAGTAGCAAAGGGACCATCCGCCTGTGTGACATGCGCTCCTCGGCCCTGTGCGACAGACACTCCAAGTT
TTTTGAAGAGCCTGAAGATCCCAGCAGTAGGTCTTCTCTCAGAAATAATTTCCATCATATCCGATGTA
AAATTCAGTCATAGTGGCGGTACATGATGACCAGAGACTACCTGTCGGTGAAGGTGTGGGACCTCAACA
TGGAGAGCAGGCCGGTGGAGACCCAGGTCCACGAGTACCTGCGCAGCAAGCTCTGCTCTCTATGA
GAACGACTGCATCTTTGACAAGTTTGAGTGTGCTGGAACGGTTCGGATAGCGCCATCATGACCGGGTCC
TATAACAACCTTCTCAGGATGTTTGATAGAGACACGCGGAGGGATGTGACCTGGAGGCCTCGAGAGAGA
GCAGCAAACCGCGCGCCAGCCTCAAACCCCGGAAGGTGTGTACGGGGGGTAAGCGGAGGAAAGACGAGAT
CAGTGTGGACAGTCTGGACTTCAACAAGAAGATCCTGCACACAGCCTGGCACCCCGTGGACAATGTCATT
GCCGTGGCTGCCACCAATAACTTGTACATATCCAGGACAAAATCAAC

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC221048 representing NM_001003656
Red=Cloning site Green=Tags(s)

MEELTEVITAAEFHPHQCNVVFVYSSSKGTIRLCDMRSSALCDRHSKFFEEPDPSSRSFFSEIISISDV
 KFSHSGRYMMTRDYL SVK V WDLN MESRPVETHQVHEYLRSKLSLYENDCIFDKFECCWNGSDSAIMTGS
 YNNFFRMFDRDTRRDVTL EASRESSKPRASLKPRKVCTGGKRRKDEISVDSLDFNKKILHTAWHPVDNVI
 AVAATNNLYIFQDKIN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6037_c05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001003656

ORF Size: 678 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_001003656.1](#), [NP_001003656.1](#)

RefSeq Size: 2091 bp

RefSeq ORF: 680 bp

Locus ID: 55844

Cytogenetics: 10q26.3

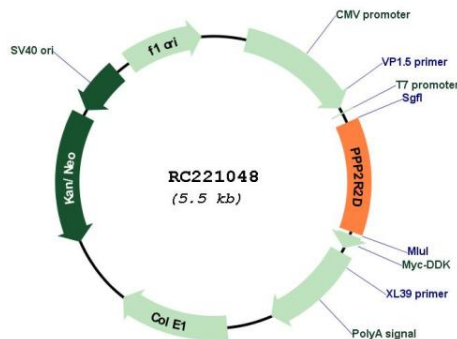
Protein Families: Druggable Genome, Phosphatase

Protein Pathways: Tight junction

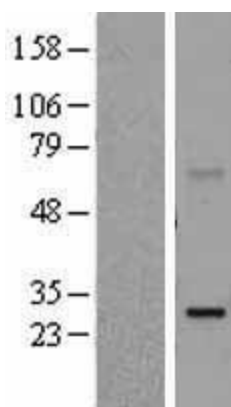
MW: 26.1 kDa

Gene Summary: B regulatory subunit of protein phosphatase 2A (PP2A) that plays a key role in cell cycle by controlling mitosis entry and exit. The activity of PP2A complexes containing PPP2R2D (PR55-delta) fluctuate during the cell cycle: the activity is high in interphase and low in mitosis. During mitosis, activity of PP2A is inhibited via interaction with phosphorylated ENSA and ARPP19 inhibitors. Within the PP2A complexes, the B regulatory subunits modulate substrate selectivity and catalytic activity, and also may direct the localization of the catalytic enzyme to a particular subcellular compartment (By similarity).[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RC221048



Western blot validation of overexpression lysate (Cat# [LY400373]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221048 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).