

### **Product datasheet for RC201661**

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## p27 KIP 1 (CDKN1B) (NM\_004064) Human Tagged ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

Product Name: p27 KIP 1 (CDKN1B) (NM 004064) Human Tagged ORF Clone

Tag: Myc-DDK Symbol: p27 KIP 1

Synonyms: CDKN4; KIP1; MEN1B; MEN4; P27KIP1

Mammalian Cell

Selection:

Neomycin

Vector:pCMV6-Entry (PS100001)E. coli Selection:Kanamycin (25 ug/mL)

ORF Nucleotide >RC201661 representing NM\_004064

Sequence: Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC

GCCGCGATCGCC

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT

ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC201661 representing NM\_004064

Red=Cloning site Green=Tags(s)

MSNVRVSNGSPSLERMDARQAEHPKPSACRNLFGPVDHEELTRDLEKHCRDMEEASQRKWNFDFQNHKPL EGKYEWQEVEKGSLPEFYYRPPRPPKGACKVPAQESQDVSGSRPAAPLIGAPANSEDTHLVDPKTDPSDS

QTGLAEQCAGIRKRPATDDSSTQNKRANRTEENVSDGSPNAGSVEQTPKKPGLRRRQT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV





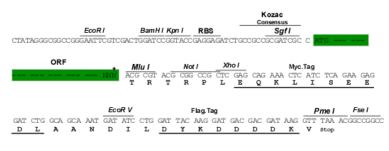
**Chromatograms:** https://cdn.origene.com/chromatograms/mg2339 g04.zip

**Restriction Sites:** 

Sgfl-Mlul

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

NM\_004064 ACCN:

**ORF Size:** 594 bp

**OTI Disclaimer:** 

Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.

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:** <u>NM 004064.5</u>

 RefSeq Size:
 2422 bp

 RefSeq ORF:
 597 bp

 Locus ID:
 1027

 UniProt ID:
 P46527

 Cytogenetics:
 12p13.1

 Domains:
 CDI

**Protein Families:** Druggable Genome

**Protein Pathways:** Cell cycle, Chronic myeloid leukemia, ErbB signaling pathway, Pathways in cancer, Prostate

cancer, Small cell lung cancer

**MW:** 21.9 kDa

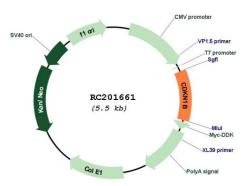
Gene Summary: This gene encodes a cyclin-dependent kinase inhibitor, which shares a limited similarity with

CDK inhibitor CDKN1A/p21. The encoded protein binds to and prevents the activation of cyclin E-CDK2 or cyclin D-CDK4 complexes, and thus controls the cell cycle progression at G1. The degradation of this protein, which is triggered by its CDK dependent phosphorylation and subsequent ubiquitination by SCF complexes, is required for the cellular transition from quiescence to the proliferative state. Mutations in this gene are associated with multiple

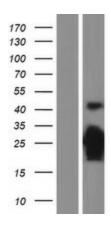
endocrine neoplasia type IV (MEN4). [provided by RefSeq, Apr 2014]



# **Product images:**

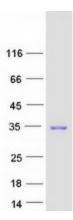


Circular map for RC201661



Western blot validation of overexpression lysate (Cat# [LY401318]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201661 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).





Coomassie blue staining of purified CDKN1B protein (Cat# [TP301661]). The protein was produced from HEK293T cells transfected with CDKN1B cDNA clone (Cat# RC201661) using MegaTran 2.0 (Cat# [TT210002]).