

Product datasheet for **RG201661**

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: TurboGFP
Symbol: p27 KIP 1
Synonyms: CDKN4; KIP1; MEN1B; MEN4; P27KIP1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG201661 representing NM_004064
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGTCAAACGTGCGAGTGTCTAACGGGAGCCCTAGCCTGGAGCGGATGGACGCCAGGCAGGCGGAGCACC
 CCAAGCCCTCGGCTGCAGGAACCTCTTCGGCCCGGTGGACCACGAAGAGTTAACCCGGGACTTGGAGAA
 GCACTGCAGAGACATGGAAGAGGCGAGCCAGCGCAAGTGAATTTGATTTTCAGAATCACAAACCCCTA
 GAGGGCAAGTACGAGTGGCAAGAGGTGGAGAAGGGCAGCTTGCCCGAGTTCTACTACAGACCCCCGCGGC
 CCCCCAAAGGTGCTGCAAGGTGCCGGCGCAGGAGAGCCAGGATGGCAGCGGGAGCCGCCGGCGCGGCC
 TTTAATTGGGGTCCGGCTAACTCTGAGGACACGCATTTGGTGGACCCAAAGACTGATCCGTCGGACAGC
 CAGACGGGGTTAGCGGAGCAATGCGCAGGAATAAGGAAGCGACCTGCAACCGACGATTCTTCTACTCAA
 ACAAAGAGCCAAACAGAACAGAGAAAATGTTTCAGACGGTTCGCCAAATGCCGGTTCTGTGGAGCAGAC
 GCCCAAGAAGCCTGGCCTCAGAAGACGTCAAACG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG201661 representing NM_004064
 Red=Cloning site Green=Tags(s)

MSNVRVSNGPSLERMDARQAEHPKPSACRNLFPGVDHEELTRDLEKHCRCMEEASQRKWNFDQNHKPL
 EGKYEWQVEVEKGSLEPFYRPPRPPKGAACKVPAQESQDGSGRPAAPLIGAPANSEDTLHVDPKTDPDS
 QTGLAEQCAGIRKRPATDDSSSTQNKRANRTEENVSDGSPNAGSVEQTPKKPGLRRRQT

TRTRPLE - GFP Tag - V

Restriction Sites: Sgfl-MluI



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Cloning Scheme:



ACCN: NM_004064

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.

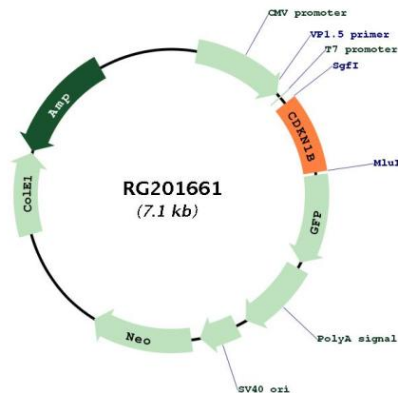
Components: The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

RefSeq: [NM_004064.2](#), [NP_004055.1](#)

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
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 RG201661