

## Product datasheet for MR201957

### Cdkn1b (NM\_009875) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Cdkn1b (NM\_009875) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Cdkn1b  
**Synonyms:** AA408329; A1843786; Kip1; p27; p27Kip1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR201957 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGTCAAACGTGAGAGTGTCTAACGGGAGCCCGAGCCTGGAGCGGATGGACGCCAGACAAGCGGATCACC  
 CCAAGCCTCCGCTGCAGAAATCTCTTCGGCCCGGTCAATCATGAAGAACTAACCCGGGACTTGGAGAA  
 GCACTGCCGGGATATGGAAGAAGCGAGTCAGCGCAAGTGAATTCGACTTTCAGAAATCATAAGCCCTG  
 GAGGGCAGATACGAATGGCAGGAGGTGGAGAGGGGCAGCTTGCCCGAGTTCTACTACAGGCCCGCGCC  
 CCCCCAAGAGCGCCTGCAAGGTGCTGGCGCAGGAGAGCCAGGATGTCAGCGGGAGCCGAGCGGTGCC  
 TTTAATTGGGTCTCAGGCAAACTCTGAGGACCGGCATTTGGTGGACCAAATGCCTGACTCGTCAGACAAT  
 CAGGCTGGGTTAGCGGAGCAGTGTCCAGGGATGAGGAAGCGACCTGCTGCAGAAGATTCTTCTTCGCAAA  
 ACAAAAAGGGCCAACAGAACAGAAAGAAAATGTTTCAGACGGTTCGCCGAACGCTGGCACTGTGGAGCAGAC  
 GCCCAAGAAGCCCGGCCTTCGACGCCAGACG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR201957 protein sequence  
 Red=Cloning site Green=Tags(s)

MSNVRVNSGSPSLERMDARQADHPKPSACRNLFGPVNHEELTRDLEKHCRDMEEASQRKWNFDFQNHKPL  
 EGRYEWQEVERGSLPEFYRPPRPPKSACKVLAQESQDVSGSRQAVPLIGSQANSEDRHLVDQMPDSSDN  
 QAGLAEQCPGMRKRPAAEDSSSQNKRANRTEENVSDGSPNAGTVEQTPKKPGLRRQT

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_009875

**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](mailto: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\\_009875.1](#)

**RefSeq Size:** 2405 bp

**RefSeq ORF:** 594 bp

**Locus ID:** 12576

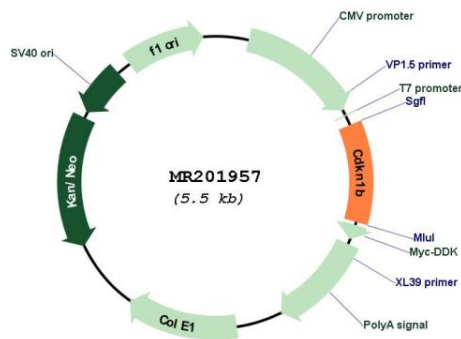
**UniProt ID:** [P46414](#)

**Cytogenetics:** 6 65.77 cM

**MW:** 22.2 kDa

**Gene Summary:** Important regulator of cell cycle progression (PubMed:8033213, PubMed:12972555). Inhibits the kinase activity of CDK2 bound to cyclin A, but has little inhibitory activity on CDK2 bound to SPDYA (By similarity). Involved in G1 arrest. Potent inhibitor of cyclin E- and cyclin A-CDK2 complexes (PubMed:8033213). Forms a complex with cyclin type D-CDK4 complexes and is involved in the assembly, stability, and modulation of CCND1-CDK4 complex activation. Acts either as an inhibitor or an activator of cyclin type D-CDK4 complexes depending on its phosphorylation state and/or stoichiometry.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR201957