

## Product datasheet for RC231921

### p21 (CDKN1A) (NM\_001220778) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** p21 (CDKN1A) (NM\_001220778) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** p21  
**Synonyms:** CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >RC231921 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCCCGCATCGCC

ATGTCAGAACCGGCTGGGGATGTCGTCAGAACCATGCGGCAGCAAGGCCTGCCGCCCTCTTCGGCC  
 CAGTGGACAGCGAGCAGCTGAGCCGCGACTGTGATGCGCTAATGGCGGGCTGCATCCAGGAGGCCCGTGA  
 GCGATGGAACCTCGACTTTGTCACCGAGACACCACTGGAGGGTGACTTCGCTGGGAGCGTGTGCGGGC  
 CTTGGCCTGCCAAGCTCTACCTCCCACGGGGCCCGCGAGGCGGGATGAGTTGGGAGGAGGCAGGC  
 GGCTGGCACCTCACCTGCTCTGCTGCAGGGGACAGCAGAGGAAGACCATGTGGACCTGTCACTGTCTTG  
 TACCCTTGTGCCTCGCTCAGGGGAGCAGGCTGAAGGGTCCCAGGTGGACCTGGAGACTCTCAGGGTCTGA  
 AAACGGCGGCAGACCAGCATGACAGATTCTACCACTCCAACGCGGGCTGATCTTCTCCAAGAGGAAGC  
 C

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC231921 protein sequence  
 Red=Cloning site Green=Tags(s)

MSEPAGDVRQNPCGSKACRRLFQPVDSQLSRDCDALMAGCIQEARERWNFDFVTETPLEGDFAWERVRG  
 LGLPKLYLPTGPRRGRDELGGRRPGTSPALLQGTAEEDHVDLSLCTLVPRSGEQAEGSPGGPGDSQGR  
 KRRQTSMTDFYHSKRRLIFSKRKP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6376\\_c12.zip](https://cdn.origene.com/chromatograms/mk6376_c12.zip)





**Cytogenetics:** 6p21.2

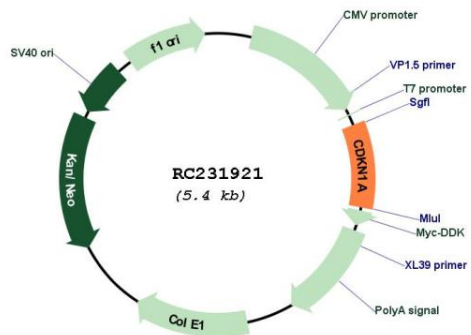
**Protein Families:** Druggable Genome

**Protein Pathways:** Bladder cancer, Cell cycle, Chronic myeloid leukemia, ErbB signaling pathway, Glioma, Melanoma, p53 signaling pathway, Pathways in cancer, Prostate cancer

**MW:** 18.1 kDa

**Gene Summary:** This gene encodes a potent cyclin-dependent kinase inhibitor. The encoded protein binds to and inhibits the activity of cyclin-cyclin-dependent kinase2 or -cyclin-dependent kinase4 complexes, and thus functions as a regulator of cell cycle progression at G1. The expression of this gene is tightly controlled by the tumor suppressor protein p53, through which this protein mediates the p53-dependent cell cycle G1 phase arrest in response to a variety of stress stimuli. This protein can interact with proliferating cell nuclear antigen, a DNA polymerase accessory factor, and plays a regulatory role in S phase DNA replication and DNA damage repair. This protein was reported to be specifically cleaved by CASP3-like caspases, which thus leads to a dramatic activation of cyclin-dependent kinase2, and may be instrumental in the execution of apoptosis following caspase activation. Mice that lack this gene have the ability to regenerate damaged or missing tissue. Multiple alternatively spliced variants have been found for this gene. [provided by RefSeq, Sep 2015]

**Product images:**



Circular map for RC231921