

Product datasheet for **RG236494**

p21 (CDKN1A) (NM_001291549) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: p21 (CDKN1A) (NM_001291549) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: CDKN1A
Synonyms: CAP20; CDKN1; CIP1; MDA-6; P21; p21CIP1; SDI1; WAF1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG236494 representing NM_001291549.
Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGTGGGGAGTATTCAGGAGACAGACAACCTCACTCGTCAAATCCTCCCCTTCTGGCCAACAAGCTGC
TGCAACCACAGGGATTTCTTCTGTTTCAGGCGCCATGTCAGAACCAGGCTGGGGATGTCCGTGAGAACCA
TGCGGCAGCAAGGCTGCCGCCGCTCTCGGCCAGTGGACAGCGAGCAGCTGAGCCGCGACTGTGAT
GCGCTAATGGCGGGTGCATCCAGGAGGCCGTGAGCGATGGAACCTCGACTTTGTACCCGAGACACCA
CTGGAGGGTACTTCGCCTGGGAGCGTGTGCGGGCCCTTGGCCTGCCAAGCTCTACCTCCCACGGGG
CCCCGGCAGGCGGGATGAGTTGGGAGGAGCCAGGCGGCCTGGCACCTCACCTGCTGCTGCAGGGG
ACAGCAGAGGAAGACCATGTGGACCTGTACTGTCTTGTACCCTTGTGCCTCGCTCAGGGGAGCAGGCT
GAAGGGTCCCCAGGTGGACCTGGAGACTCTCAGGGTCGAAAACGGCGGCAGACCAGCATGACAGATTTT
TACCACTCCAAACGCCGGCTGATCTTCTCCAAGAGGAAGCCC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
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Protein Sequence: >Peptide sequence encoded by RG236494
Blue=ORF Red=Cloning site Green=Tag(s)

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MWGVFRRQTTHSSNPPLPGQQSCNHRDFFCSGAMSEPAQDVRQNPCGSKACRRLFGPVDSEQLSRDCD
ALMAGCIQEARERWNFDVFTETPLEGDFAWERVRLGLPKLYLPTGPRRGRDELGGRRRPGTSPALLQG
TAEEDHVDLSLCTLVPRSGEQAEGSPGGPDSQGRKRRQTSMTDFYHSKRRLIFSKRKP
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFLSLRDGGYSSVVDSHMHFKSAIHP SILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
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Restriction Sites: SgfI-MluI



RefSeq:	NM_001291549.3
RefSeq Size:	2325 bp
RefSeq ORF:	597 bp
Locus ID:	1026
UniProt ID:	P38936
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:	22.4 kDa
Gene Summary:	<p>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]</p>