

Product datasheet for **MC200171**

Cdkn1a (NM_007669) Mouse Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cdkn1a (NM_007669) Mouse Untagged Clone
Tag:	Tag Free
Symbol:	Cdkn1a
Synonyms:	CAP; CAP20; CDK; CDKI; Cdkn; Cdkn1; Cl; CIP1; mda; mda6; P2; P21; p21C; p21Cip1; p21W; p21WAF; SD; SDI1; Waf; Waf1
Mammalian Cell Selection:	Neomycin
Vector:	PCMV6-Kan/Neo (PCMV6KN)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>BC002043 sequence for NM_007669 TGGAGTCAGGCGCAGATCCACAGCGATATCCAGACATTCAGAGCCACAGGCACCATGTCCAATCCTGGTG ATGTCCGACCTGTTCCGCACAGGAGCAAAGTGTGCCGTTGTCTCTTCGGTCCCCTGGACAGTGAGCAGTT GCGCCGTGATTGCGATGCGCTCATGGCGGGCTGTCTCCAGGAGGCCCGAGAACGGTGAACCTTTGACTTC GTCACGGAGACGCCCGCTGGAGGGCAACTTCGTCTGGGAGCGCTTCGGAGCCTAGGGCTGCCAAGGTCT ACCTGAGCCCTGGGTCCCAGCCGTGACGACCTGGGAGGGGACAAGAGGCCAGTACTTCTCTGCCCT GCTGCAGGGGCCAGCTCCGGAGGACCACGTGGCCTTGTGCTGTCTTGCACTCTGGTGTCTGAGCGCCT GAAGATCCCCGGTGGGCCCGAACATCTCAGGGCCGAAAACGGAGGCAGACCAGCCTGACAGATTCT ATCACTCCAAGCGCAGATTGGTCTTCTGCAAGAGAAAACCCTGAAGTGCCACGGGAGCCCCGCCCTCT CTGCTGTGGTTCAGGAGGCCTTCCCCATCTTCGGCCTTAGCCCTCACTCTGTGTGTCTTAATTATTAT TTGTGTTTTAATTTAAACGTCTCCTGTATATACGCTGCCTGCCCTCTCCAGTCTCCAAACTTAAAGTTA TTAAAAAAAAAAAAAAAAAAAAAAAAAAAA
Restriction Sites:	RsrII-NotI
ACCN:	NM_007669
Insert Size:	480 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
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).



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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: [BC002043](#), [AAH02043](#)

RefSeq Size: 727 bp

RefSeq ORF: 480 bp

Locus ID: 12575

UniProt ID: [P39689](#)

Cytogenetics: 17 15.12 cM

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 the G1 phase. 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. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Sep 2015]
Transcript Variant: This variant (1) represents the predominant transcript. Variants 1 and 2 both encode the same protein.