

Product datasheet for MR201412

Cdkn2a (NM_009877) Mouse Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: Cdkn2a (NM_009877) Mouse Tagged ORF Clone
Tag: Myc-DDK
Symbol: Cdkn2a
Synonyms: Arf; ARF-INK4a; INK4a-ARF; Ink4a/Arf; MTS1; p16; p16(INK4a); p16INK4a; p19 p19ARF; Pctr1
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >MR201412 representing NM_009877
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGGTCGCAGGTTCTTGGTCACTGTGAGGATTCAGCGCGGGCCGCCACTCCAAGAGAGGGTTTTCT
 TGGTGAAGTTCGTGCGATCCCGGAGACCCAGGACAGCGAGCTGCGCTCTGGCTTTCGTGAACATGTTGTT
 GAGGCTAGAGAGGATCTTGAGAAGAGGGCCGACCGGAATCCTGGACCAGGTGATGATGATGGCAACGT
 TCACGTAGCAGCTCTTCTGCTCAACTACGGTGCAGATTCGAACTGCGAGGACCCACTACCTTCTCCCGC
 CCGGTGCACGACGACGCGCGGAAGGCTTCTGGACACGCTGGTGGTGCACGGGTGAGGGCTCGGC
 TGGATGTGCGCGATGCCTGGGGTCGCCTGCCGCTCGACTTGGCCAAGAGCGGGGACATCAAGACATCGT
 GCGATATTTGCGTTCGCTGGGTGCTCTTTGTGTTCCGCTGGGTGGTCTTTGTGTACCGCTGGGAACGTC
 GCCAGACCGACGGGCA

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

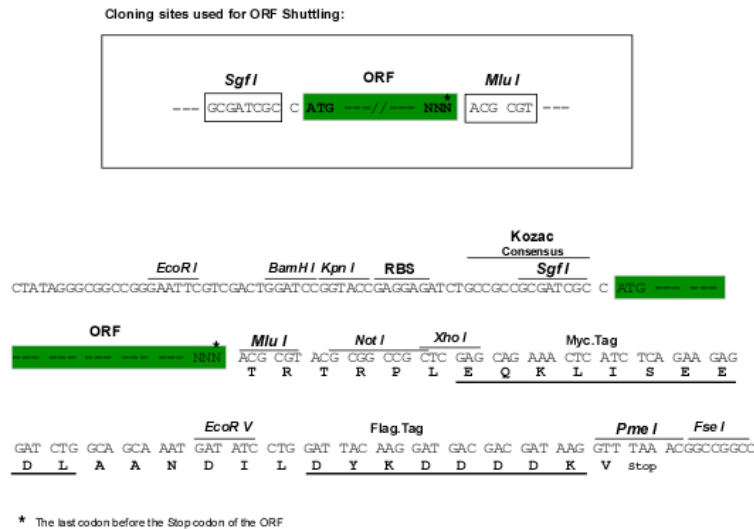
Protein Sequence: >MR201412 representing NM_009877
 Red=Cloning site Green=Tags(s)

MGRRFLVTVRIQRAGRPLQERVFLVKFVRSRRPRTASCALAFVNMLLRLEILRRGPHRNP GPGDDDGQR
 SRSSSSAQLRCR FELRGP HYLLPPGARRSAGRLPGHAGGAARVRSAGCARCLGSPAARLGPRAGTSRHR
 AIFAFRWVLFVFRWVVFVYRWERRPDRRA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: Sgfl-MluI



Cloning Scheme:


ACCN: NM_009877

ORF Size: 507 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:

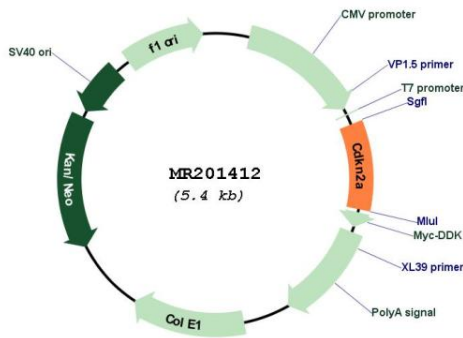
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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_009877.2](#), [NP_034007.1](#)

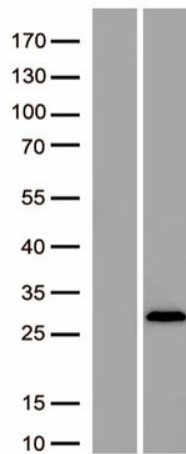
RefSeq Size: 929 bp
 RefSeq ORF: 510 bp
 Locus ID: 12578
 UniProt ID: [Q64364](https://www.uniprot.org/uniprot/Q64364)
 Cytogenetics: 4 42.15 cM
 MW: 19.7 kDa

Gene Summary: Acts as a negative regulator of the proliferation of normal cells by interacting strongly with CDK4 and CDK6. This inhibits their ability to interact with cyclins D and to phosphorylate the retinoblastoma protein.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for MR201412



Western blot validation of overexpression lysate using anti-DDK antibody (Cat# [TA180144]). Left: Cell lysates from un-transfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with MR201412 using transfection reagent PEI.