

Product datasheet for **RC204895**

p15 INK4b (CDKN2B) (NM_004936) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: p15 INK4b (CDKN2B) (NM_004936) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: p15 INK4b
Synonyms: CDK4I; INK4B; MTS2; P15; p15INK4b; TP15
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC204895 representing NM_004936
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCGCGAGGAGAACAAGGGCATGCCAGTGGGGCGGCAGCGATGAGGGTCTGGCCAGCGCCGCGGCGC
 GGGGACTAGTGGAGAAGGTGCGACAGCTCCTGGAAGCCGGCGCGGATCCCAACGGAGTCAACCGTTTCGG
 GAGGCGCGCGATCCAGGTATGATGATGGGCAGCGCCCGCTGGCGGAGCTGCTGCTGCCACGGCGCG
 GAGCCCAACTGCGCAGACCCTGCCACTCTACCCGACCGGTGCATGATGCTGCCGGGAGGGCTTCTCG
 ACACGCTGGTGGTGTGCACCGGCCGGGGCGCGCTGGACGTGCGCGATGCCTGGGGTCTGCTGCCCGT
 GGACTTGCCGAGGAGCGGGGCCACCGGACGTTGCAGGGTACCTGCGCACAGCCACGGGGGAC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCC
 TGGATTACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC204895 representing NM_004936
 Red=Cloning site Green=Tags(s)

MREENKMPSSGGGSDEGLASAAARGLVEKVRQLLEAGADPNGVNRFGRRAIQVMMMSARVAELLLLHGA
 EPNCADPATLTRPVHDAAREGFLDTLVVLRHAGARLDVRDAWGRLPVDLAEERGHHRDVAGYLRTATGD

SGPTRRRLEQKLISEEDLAANDILDYKDDDDKV

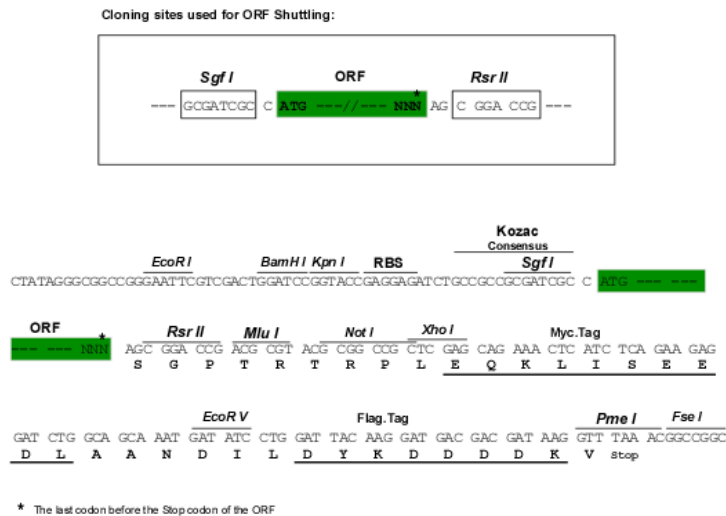
Chromatograms: https://cdn.origene.com/chromatograms/mg2991_d01.zip

Restriction Sites: SgfI-RsrII



[View online »](#)

Cloning Scheme:



ACCN: NM_004936

ORF Size: 414 bp

OTI Disclaimer: 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_004936.4](#)

RefSeq Size: 3878 bp

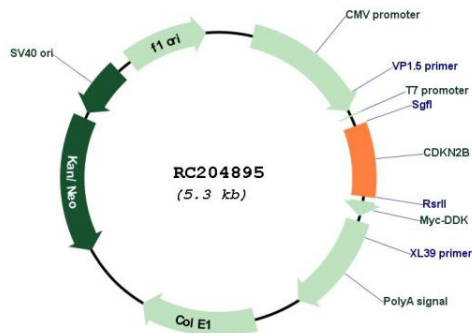
RefSeq ORF: 417 bp

Locus ID: 1030
 UniProt ID: [P42772](#)
 Cytogenetics: 9p21.3

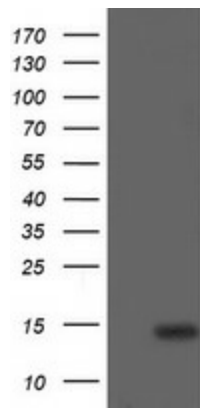
Domains: ANK
 Protein Families: Druggable Genome
 Protein Pathways: Cell cycle, Pathways in cancer, Small cell lung cancer, TGF-beta signaling pathway
 MW: 14.5 kDa

Gene Summary: This gene lies adjacent to the tumor suppressor gene CDKN2A in a region that is frequently mutated and deleted in a wide variety of tumors. This gene encodes a cyclin-dependent kinase inhibitor, which forms a complex with CDK4 or CDK6, and prevents the activation of the CDK kinases, thus the encoded protein functions as a cell growth regulator that controls cell cycle G1 progression. The expression of this gene was found to be dramatically induced by TGF beta, which suggested its role in the TGF beta induced growth inhibition. Two alternatively spliced transcript variants of this gene, which encode distinct proteins, have been reported. [provided by RefSeq, Jul 2008]

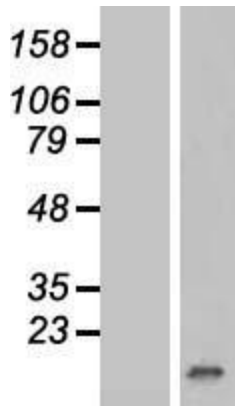
Product images:



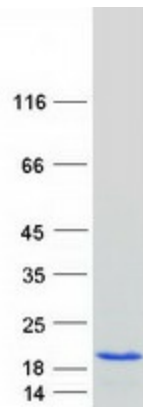
Circular map for RC204895



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CDKN2B (Cat# RC204895, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CDKN2B (Cat# [TA505206]). Positive lysates [LY417638] (100ug) and [LC417638] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY417638]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC204895 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CDKN2B protein (Cat# [TP304895]). The protein was produced from HEK293T cells transfected with CDKN2B cDNA clone (Cat# RC204895) using MegaTran 2.0 (Cat# [TT210002]).