

Product datasheet for **RG217024**

p15 INK4b (CDKN2B) (NM_078487) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: p15 INK4b (CDKN2B) (NM_078487) Human Tagged ORF Clone
Tag: TurboGFP
Symbol: CDKN2B
Synonyms: CDK4I; INK4B; MTS2; P15; p15INK4b; TP15
Mammalian Cell Selection: Neomycin
Vector: pCMV6-AC-GFP (PS100010)
E. coli Selection: Ampicillin (100 ug/mL)
ORF Nucleotide Sequence: >RG217024 representing NM_078487
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGCGCGAGGAGAACAAGGGCATGCCAGTGGGGCGGCAGCGATGAGGGTCTGGCCAGCGCCGCGGCGC
 GGGGACTAGTGGAGAAGGTGCGACAGCTCCTGGAAGCCGGCGCGGATCCCAACGGAGTCAACCGTTTCGG
 GAGGCGCGCATCCAGGTAGCTGGGGCCCCAGGGCCTCGCCGGCAGGGGGCGCGCAACCGGGGCGCG
 CCTCGGCGGATCGGGCTGGAACC

AGCGG**ACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence: >RG217024 representing NM_078487
 Red=Cloning site Green=Tags(s)
 MREENKGMPSGGGSDEGLASAAARGLVEKVRQLLEAGADPNGVNRFGRRAIQVAGAPGPRRQGARERGAR
 PRRIGAGT

SGP**TRTRRLE** - GFP Tag - V

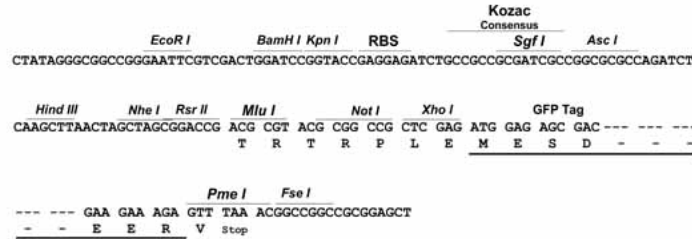
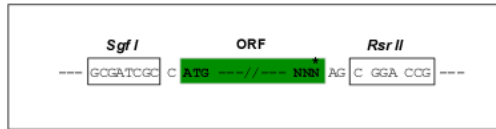
Restriction Sites: SgfI-RsrII



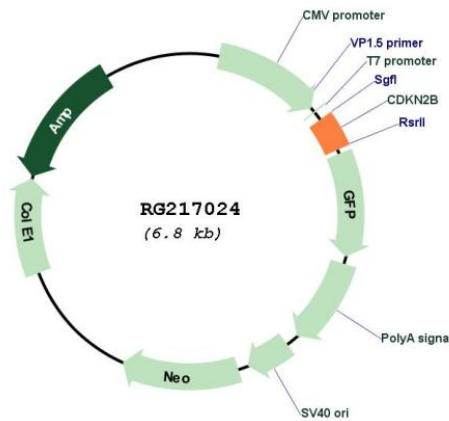
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Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_078487

ORF Size: 234 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:	<ol style="list-style-type: none">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_078487.2 , NP_511042.1
RefSeq Size:	4001 bp
RefSeq ORF:	237 bp
Locus ID:	1030
UniProt ID:	P42772
Cytogenetics:	9p21.3
Protein Families:	Druggable Genome
Protein Pathways:	Cell cycle, Pathways in cancer, Small cell lung cancer, TGF-beta signaling pathway
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]