

## Product datasheet for **MG204342**

### Cdk5r1 (BC050768) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Cdk5r1 (BC050768) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Cdk5r1
Synonyms:	p35, Cdk5r, p25
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>MG204342 representing BC050768 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCACGGTGTCCCTATCCCCAGCTATCGGAAGGCCACACTGTTTGAGGATGGCGCGGCCACCG  
TGGGCCACTACACGGCCGTGCAGAACAGCAAGAACGCCAAGGACAAGAACCTGAAGCGGCACTCCATCAT  
CTCGGTGCTGCCTTGAAGAGGATCGTGCCGGTGTGAGCGAAGAAGAAGAACTCCAAGAAGGCGCAGCCC  
AACAGCAGCTACCAGAGCAACATCGCGCATCTCAACAATGAGAACCTGAAGAAGTCGCTGTCTGTGCCA  
ACCTGTCCACATTCGCCAGCCCCGCGGCTCAGCCGCCGACCCCCAGCCAGCAGCTTCTGGCTC  
CCAGACTGGGGTCTCCTCTTCTGTCAAGAAGGCCCCGCACCCTGCCATCACCTCTGCAGGGACACCCAAA  
CGGGTCATCGTCCAGGCGTCCACTAGTGAGCTGCTGCGCTGCCTGGGTGAGTTTCTGCGCCGGTGTCT  
ACCGCCTGAAGCACTTGTCCCAACGGACCCCGTCTGCTGCTGCGCAGCGTGGACCGCTCCCTGCTTCT  
GCAGGGCTGGCAGGACCAGGTTTCATCACACCGCCAATGTGGTCTTCTCTACATGCTCTGCAGGGAT  
GTCATCTCCTCTGAGGTGGGCTCCGACCATGAGCTCCAGGCTGTCTGCTGACCTGTCTGTACCTCTCT  
ATTCTACATGGGCAATGAGATCTCTACCCGCTCAAGCCCTTCTGGTAGAGAGCTGTAAGGAAGCCTT  
TTGGGACCGTTGCCTCTCAGTTATCAACCTCATGAGCTCCAAGATGCTGCAGATCAATGCCGACCCACAC  
TATTTACACAAGTGTTCTCTGACTTGAAGAATGAGAGCGGTGAGGAGCAAGAAGCGACTCTCTCTGG  
GGCTGGATCGG

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >MG204342 representing BC050768  
 Red=Cloning site Green=Tags(s)

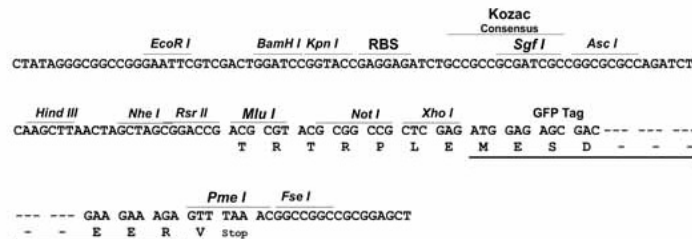
MGTVLSLSPSYRKATLFEDGAATVGHYTAVQNSKNAKDKNLKRHSIIISVLPWKRIIVASAKKKNSKKAQP  
 NSSYQSNIAHLNENLKKSLSCANLSTFAQPPPAQPPAPPASQLSGSQTGVSSSVKKAPHPAITSAGTPK  
 RVIVQASTSELLRCLGEFLCRRCYRLKHLSPDPVLWLRVDRSLLLQGWQDQGFITPANVVFLYMLCRD  
 VISSEVGSDHELQAVLLTCLYLSYSYMGNEISYPLKPFVLESCKEAFWDRCLSVINLMSSKMLQINADPH  
 YFTQVFDLKNESGQEDKKRLLLLGLDR

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** BC050768

**ORF Size:** 921 bp

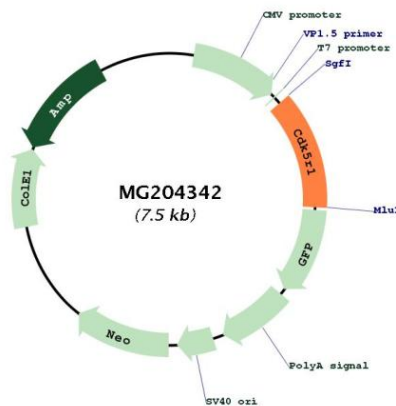
**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in *E. coli* are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of 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](mailto: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.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"> <li>1. Centrifuge at 5,000xg for 5min.</li> <li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li> <li>3. Close the tube and incubate for 10 minutes at room temperature.</li> <li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li> <li>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.</li> </ol>
<b>RefSeq:</b>	<a href="#">BC050768</a> , <a href="#">AAH50768</a>
<b>RefSeq Size:</b>	4166 bp
<b>RefSeq ORF:</b>	923 bp
<b>Locus ID:</b>	12569
<b>Cytogenetics:</b>	11 47.94 cM
<b>Gene Summary:</b>	p35 is a neuron specific activator of CDK5. The complex p35/CDK5 is required for neurite outgrowth and cortical lamination. Involved in dendritic spine morphogenesis by mediating the EFNA1-EPHA4 signaling. Activator of TPKII. The complex p35/CDK5 participates in the regulation of the circadian clock by modulating the function of CLOCK protein: phosphorylates CLOCK at 'Thr-451' and 'Thr-461' and regulates the transcriptional activity of the CLOCK-ARNTL/BMAL1 heterodimer in association with altered stability and subcellular distribution.[UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MG204342