

## Product datasheet for **RC206302**

### p35 (CDK5R1) (NM\_003885) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	p35 (CDK5R1) (NM_003885) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	p35
Synonyms:	CDK5P35; CDK5R; NCK5A; p23; p25; p35; p35nck5a
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206302 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCACGGTGTCTCCCTGTCTCCAGCTACCGGAAGGCCACGCTGTTTGAGGATGGCGCGGCCACCG  
TGGGCCACTATACGGCCGTACAGAACAGCAAGAACGCCAAGGACAAGAACCTGAAGCGCCACTCCATCAT  
CTCCGTGCTGCCTTGAAGAGAATCGTGGCCGTGTCGGCCAAGAAGAAGAACTCAAAGAAGGTGCAGCCC  
AACAGCAGCTACCAGAACAACATCACGCACCTCAACAATGAGAACCTGAAGAAGTCGCTGTCGTGCGCCA  
ACCTGTCCACATTCGCCCAGCCCCACCGGCCAGCCGCTGCACCCCGCCAGCCAGCTCTCGGGTTC  
CCAGACCGGGGGCTCCTCCTCAGTCAAGAAAGCCCTCACCTGCCGTACCTCCGACGGGACGCCCAA  
CGGGTCATCGTCCAGGCGTCCACCAGTGAGCTGCTTCGCTGCCTGGGTGAGTTTCTGCGCCGGTGTCT  
ACCGCCTGAAGCACCTGTCCCCACGGACCCCGTCTGCTGGTGCAGCGTGGACCGCTCGCTGCTTCT  
GCAGGGCTGGCAGGACAAGGGCTTCATCACGCCGCAACGTGGTCTTCTCTACATGCTCTGCAGGGAT  
GTTATCTCCTCCGAGGTGGGCTCGGATCACGAGCTCCAGGCCGCTCCTGCTGACATGCCTGTACCTCTCT  
ACTCCTACATGGGCAACGAGATCTCTACCCGCTCAAGCCCTTCTGGTGGAGAGCTGCAAGGAGGCCTT  
TTGGGACCGTTGCCTCTCTGTCAACCTCATGAGCTCAAAGATGCTGCAGATAAATGCCGACCCACAC  
TACTTCACACAGGTCTTCTCCGACCTGAAGAACGAGAGCGGCCAGGAGGACAAGAAGCGGCTCCTCCTAG  
GCCTGGATCGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC206302 protein sequence  
Red=Cloning site Green=Tags(s)

MGTVLSLSPSYRKATLFEDGAATVGHYTAVQNSKNAKDKNLKRHSIISVLPWKRIIVASAKKKNSKKVQP  
 NSSYQNNITHLNNENLKKSLSCANLSTFAQPPPAQPPAPPASQLSGSQTGGSSSVKKAPHPAVTSAGTPK  
 RVIVQASTSELLRCLGEFLCRRCYRLKHLSPDPVLWLRVDRSLLLQGWQDKGFIIPANVVFLYMLCRD  
 VISSEVGSDELQAVLLTCLYLSYSYMGNEISYPLKPFLLVESCKEAFWDRCLSVINLMSSKMLQINADPH  
 YFTQVFSDLKNESGQEDKKRLLGLDR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6135\\_c09.zip](https://cdn.origene.com/chromatograms/mk6135_c09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_003885

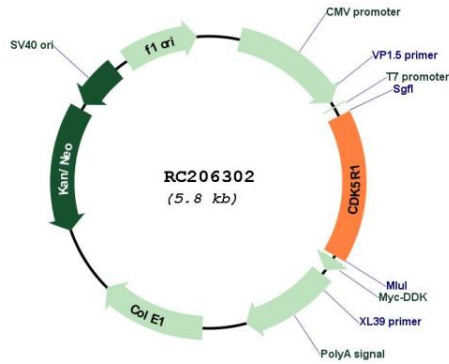
**ORF Size:** 921 bp

**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.

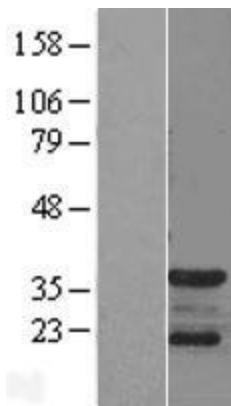
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	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="#">NM_003885.3</a>
<b>RefSeq Size:</b>	3870 bp
<b>RefSeq ORF:</b>	924 bp
<b>Locus ID:</b>	8851
<b>UniProt ID:</b>	<a href="#">Q15078</a>
<b>Cytogenetics:</b>	17q11.2
<b>Domains:</b>	CDK5_activator
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Alzheimer's disease
<b>MW:</b>	34.1 kDa
<b>Gene Summary:</b>	The protein encoded by this gene (p35) is a neuron-specific activator of cyclin-dependent kinase 5 (CDK5); the activation of CDK5 is required for proper development of the central nervous system. The p35 form of this protein is proteolytically cleaved by calpain, generating a p25 form. The cleavage of p35 into p25 results in relocalization of the protein from the cell periphery to nuclear and perinuclear regions. P25 deregulates CDK5 activity by prolonging its activation and changing its cellular location. The p25 form accumulates in the brain neurons of patients with Alzheimer's disease. This accumulation correlates with an increase in CDK5 kinase activity, and may lead to aberrantly phosphorylated forms of the microtubule-associated protein tau, which contributes to Alzheimer's disease. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC206302



Western blot validation of overexpression lysate (Cat# [LY401281]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206302 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).