

Product datasheet for **SC117693**

p35 (CDK5R1) (NM_003885) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	p35 (CDK5R1) (NM_003885) Human Untagged Clone
Tag:	Tag Free
Symbol:	p35
Synonyms:	CDK5P35; CDK5R; NCK5A; p23; p25; p35; p35nck5a
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>OriGene ORF within SC117693 sequence for NM_003885 edited (data generated by NextGen Sequencing)

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ATGGGCACGGTGTCTCCCTGTCTCCAGCTACCGGAAGGCCACGCTGTTTGAGGATGGC
GCGGCCACCGTGGGCCACTATACGGCCGTACAGAACAGCAAGAACGCCAAGGACAAGAAC
CTGAAGCGCCACTCCATCATCTCCGTGCTGCCTTGAAGAGAATCGTGGCCGTGTCGGCC
AAGAAGAAGAACTCCAAGAAGGTGCAGCCCAACAGCAGCTACCAGAACACATCACGCAC
CTCAACAATGAGAACCTGAAGAAGTCGCTGTCGTGCGCCAACCTGTCCACATTGCCCCAG
CCCCACCGGCCAGCCGCTGCACCCCGGCCAGCCAGCTCTCGGGTCCAGACCGGG
GGCTCCTCCTCAGTCAAGAAAGCCCTCACCTGCCGTACCTCCGCAGGGACGCCAAA
CGGGTCATCGTCCAGGCGTCCACCAGTGAGCTGCTTCGCTGCCTGGGTGAGTTTCTCTGC
CGCCGGTGTACCGCCTGAAGCACCTGTCCCCACGGACCCCGTCTCTGGCTGCGCAGC
GTGGACCCTCGCTGCTTCTGCAGGGCTGGCAGGACCAGGGCTTCATCACGCCGGCCAAC
GTGGTCTTCTCTACATGCTCTGCAGGGATGTTATCTCCTCCGAGGTGGGCTCGGATCAC
GAGCTCCAGGCCGCTCCTGCTGACATGCCTGTACCTCTCCTACTCTACATGGGCAACGAG
ATCTCCTACCCGCTCAAGCCCTTCTGGTGGAGAGCTGCAAGGAGGCCTTTTGGGACCGT
TGCCTCTGTGCATCAACCTCATGAGCTCAAAGATGCTGCAGATAAATGCCGACCCACAC
TACTTCACACAGGTCTTCTCCGACCTGAAGAACGAGAGCGGCCAGGAGGACAAGAAGCGG
CTCCTCCTAGGCCTGGATCGGTGA

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Clone variation with respect to NM_003885.2



[View online »](#)

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_003885 unedited
 GGATTTGTATACGACTCTATAGGGCGGCCGGAATTCGCACGAGGGCGGCGGGGGCC
 GCGGCGCGCATTGCGGAGGGCGCGGAGCGCAGGAGCTGCCGCCTGCCGGGCAGATCCAAG
 GGGGCAGCACGCTTCCCGGGAGCGCCCCCGCTCCTCCTCCGGGGCCGCCGAGGCTCGGT
 GAGCGGTTTTATCCCTCCGGCCGGCAGGCTGGGCGCGCAGGGGCGCGAGCCCCGCGG
 CGCGCAGCAGCACCATGGGCACGGTGTGTCCCTGTCTCCAGCTACCGGAAGGCCACGC
 TGTTTGAGGATGGCGCGGCCACCGTGGGCCACTATACGGCCGTACAGAACAGCAAGAACG
 CCAAGGACAAGAACCTGAAGCGCCACTCCATCATCTCCGTGCTGCCTTGAAGAGAATCG
 TGCCCGTGTCCGCAAGAAGAAGAACTCCAAGAAGGTGCAGCCCAACAGCAGCTACCAGA
 ACAACATCACGCACCTCAACAATGAGAACCTGAAGAAGTCGCTGTCTGCGCCAACCTGT
 CCACATTCGCCAGCCCCACCGGCCAGCCGCCTGCACCCCGGCCAGCCAGCTCTCGG
 GTTCCAGACCGGGGCTCCTCCTCAGTCAAGAAAGCCCTCACCTGCCGTACCTCCG
 CAGGGACGCCAAACGGGTATCGTCCAGGCGTCCACCAGTGAGCTGCTTCGCTGCCTGG
 GGTGAGTTTCTCTGCCCGGCTGCTACCGCCTGAAGCACCTGTCCCCACGGACCCCGT
 CTCTGGCTGCGCAGCGTGGACCGCTCGTCTTCTGCAGGGCTGGGCAGACCAGGGCTTT
 ATCACGCCGCCAAACGTGGTCTTTCTCTCAGCCTGGGAGGGGGATGNTATCTCTCCCC
 AGTGGGGCTCGGATCACAGCCTCNCAGNCCGTNCTGCTGACATGCCTGTACCTCTCTATN
 CACTGGNNNNACGAGATCTCTACCGCTAG

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_003885 unedited
 ACCCGGCACGCAATCTAGTGTGAGTTTTTTTTTTTTTTTTTTTTATGGATGGTCAGTGC
 ATTTTATTGAATCAGCACAGTACAAAAATAAATAAAAAAAGGGGAAGGGGAATTAATTA
 CAGCCAAACTGAGCTTCATGACTTTGTGAGATTATAAACACACATACTACAAACACAC
 TACACATACATAAAAATGAGACAAATATAAATTAATATTAACAATACCCACAGTTTGGT
 CAAAGAATAGCTACAGAAGAAATTGCACTAAAAAACCAACATACATCACACGTGTGTAAT
 TAGCAGTTTCAAATATACAGCTATGAATAATTCTGAGTAAAAAAATGGCACATTTTCTT
 TTCATTGCAAGTTTAACTGTTGGAACAAAATAAGTTCTAATAACTGCATGGAAAGAATA
 TATCAACCCTCCAGGTTTACAAGAAAAAGAAAAACCAATCCTGAACTATTATTCTG
 TGGCTTGTCTGTGATGGGTGTAATTTTACAGCCATCTGTTCTAAGATTATTTTTCTT
 AAGACAAAAATGCTCCTGGTTTGCATGCACAATATCACCGTAAAAGCAACAATTAAGA
 ATAAAGGCTCTTTTGAAGTTTTTTTTTATTGTTGATCTAAAAGTAGTCTTCATAGCAGC
 ATGGCATATGGGTTCTTTGCTTGACACTCAAGTATATCAGTTGTTCTTTACACAATAC
 TGATGACCAGTGCAAGGGGAGATGACACCGACAGCTTTACTGAGGGAAGTACAGAGTT
 CTTCCCTTATTCACCACCTTCCGATATGTCCACCTTCTCCGAAGATAAAAAATAATA
 CGGAGAAAGAAAGGAATCAGACACGCACTGGGATCCTGTGGATGCAACGTTACTGCACAG
 TTCGATCCAGGTTTCCGAGCTGAAGTTGACCACACATGCGCCNCTTCCGAGACTAGG
 ACTGAACCTCTTNTGCCACCAGGGCTNCCACTCTGTGCGCACGNAACAGATCTG
 ATCAAGCTGGGTGG

Restriction Sites:

NotI-NotI

ACCN:

NM_003885

Insert Size:

4130 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](#)

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_003885.2](#), [NP_003876.1](#)

RefSeq Size: 3870 bp

RefSeq ORF: 924 bp

Locus ID: 8851

UniProt ID: [Q15078](#)

Cytogenetics: 17q11.2

Domains: CDK5_activator

Protein Families: Druggable Genome

Protein Pathways: Alzheimer's disease

Gene Summary:

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]