

Product datasheet for **SC323496**

CDK6 (NM_001259) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDK6 (NM_001259) Human Untagged Clone
Tag:	Tag Free
Symbol:	CDK6
Synonyms:	MCPH12; PLSTIRE
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001259, the custom clone sequence may differ by one or more nucleotides

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ATGGAGAAGGACGGCCTGTGCCGCGCTGACCAGCAGTACGAATGCGTGGCGGAGATCGGGGAGGGCGCCT
ATGGGAAGGTGTTCAAGGCCCGGACTTGAAGAACGGAGGCCGTTTCGTGGCGTTGAAGCGCGTGCGGGT
GCAGACCGGCGAGGAGGGCATGCCGCTCTCCACCATCCGCGAGGTGGCGGTGCTGAGGCACCTGGAGACC
TTCGAGCACCCCAACGTGGTCAGGTTGTTTGTGTGTGCACAGTGTACGAACAGACAGAGAAACCAAAAC
TAACTTTAGTGTTTGAACATGTCGATCAAGACTTGACCACTTACTTGGATAAAGTTCCAGAGCCTGGAGT
GCCCACTGAAACCATAAAGGATATGATGTTTCAGCTTCTCCGAGGTCTGGACTTCTTCATTACACCCGA
GTAGTGCATCGCGATCTAAAACCACAGAACATTCTGGTGACCAGCAGCGGACAAATAAACTCGCTGACT
TCGGCCTTGCCCGCATCTATAGTTTCCAGATGGCTCTAACCTCAGTGGTGTGTCACGCTGTGGTACAGAGC
ACCCGAAGTCTTGCTCCAGTCCAGCTACGCCACCCCGTGGATCTCTGGAGTGTTGGCTGCATATTTGCA
GAAATGTTTCGTAGAAAGCCTCTTTTTCGTGGAAGTTCAGATGTTGATCAACTAGGAAAAATCTTGGACG
TGATTGGACTCCCAGGAGAAGAAGACTGGCCTAGAGATGTTGCCCTTCCCAGGCAGGCTTTTCATTCAA
ATCTGCCAACCAATTGAGAAGTTTGTAAACAGATATCGATGAACTAGGCAAGACCTACTTCTGAAGTGT
TTGACATTTAACCCAGCCAAAAGAATATCTGCCTACAGTGCCTGTCTCACCCATACTTCCAGGACCTGG
AAAGGTGCAAAGAAAACCTGGATTCCCACCTGCCGCCAGCCAGAACACCTCGGAGCTGAATACAGCCTG
A
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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_001259 unedited CCCCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGGGCTTCAGCCCTGC AGGGAAAGAAAAGTGCAATGATTCTGGACTGAGACGCGCTTGGGCAGAGGCTATGTAATCGTGTCTGTGT TGAGGACTTCGCTTCGAGGAGGGAAGAGGAGGGATCGGCTCGCTCCTCCGGCGGGCGGGCGGGCGGAC TCTGCAGGCGGAGTTTCGCGGCGGGCGCCAGGAGGTTACGCCAGCCCCCGGGGAGGTCCTCTCCATCC AGCTTCTGCAGCGGCGAAAAGCCCCAGCGCCCGAGCCGCTGGAGCCCCGGCGGGGAGCAAAGTAAAG CTAGACCGATCCTCCGGGGGAGCCCCGGAGTAGGCAAGCCGGCGGCCAGCAAGTTGAGCGCCCCCCC GCCGCCAACGGCCGCCGGGGCGGGGGCGTCAAGCGGATGAAAAGGACGCTTGCCCGCCTACCACATAC ATGCTTGCGAAATCGGAGGGCCCATGAAGTGTCAGGCCGACTGAAACGAGCCGTCAGCCTTGAGCGCGGG GGTAACCAGACGCGCA
Kinase Domain Sequence:	>SC323496 kinase domain raw sequence. By performing BLASTX analysis with this sequence against NCBI reference protein database, you can confirm the presence of the kinase-deficient mutation TYKRCYSMWAARWMMGGYKAAGAGTCKATGCGTGGCGGAGATCGGGGAGGCGCCTATGGGAAGGTGTC AAGGCCCGCGACTTGAAGAACGGAGGCCGTTTCGTGGCGTTGATGCGCGTGCGTGCGCTTATGCGCGTG CGTGGCGTTGATGCGCGTGCGTGCGCTTATGCGGGTGCCTGGCGTTGATGCGCGTGCGTGCGCTTATG CGCGTGCGTGCGTTGATGCGCGTGCGTGCGCTTATGCGCGTG
Restriction Sites:	Please inquire
ACCN:	NM_001259
Insert Size:	600 bp
OTI Disclaimer:	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
OTI Annotation:	This kinase-deficient mutant clone was generated by created by site-directed mutagenesis from the corresponding wild-type clone. See details in "Application of active and kinase-deficient kinome collection for identification of kinases regulating hedgehog signaling." Cell , 2008 May p536-548.
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_001259.5 , NP_001250.1
RefSeq Size:	11611 bp
RefSeq ORF:	981 bp
Locus ID:	1021

UniProt ID:	<u>Q00534</u>
Cytogenetics:	7q21.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Cell cycle, Chronic myeloid leukemia, Glioma, Melanoma, Non-small cell lung cancer, p53 signaling pathway, Pancreatic cancer, Pathways in cancer, Small cell lung cancer
Gene Summary:	<p>The protein encoded by this gene is a member of the CMGC family of serine/threonine protein kinases. This kinase is a catalytic subunit of the protein kinase complex that is important for cell cycle G1 phase progression and G1/S transition. The activity of this kinase first appears in mid-G1 phase, which is controlled by the regulatory subunits including D-type cyclins and members of INK4 family of CDK inhibitors. This kinase, as well as CDK4, has been shown to phosphorylate, and thus regulate the activity of, tumor suppressor protein Rb. Altered expression of this gene has been observed in multiple human cancers. A mutation in this gene resulting in reduced cell proliferation, and impaired cell motility and polarity, and has been identified in patients with primary microcephaly. [provided by RefSeq, Aug 2017]</p> <p>Transcript Variant: This variant (1) represents the longer transcript. Both variants 1 and 2 encode the same protein. Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.</p>