

Product datasheet for **SC323701**

CDK2 (NM_001798) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CDK2 (NM_001798) Human Untagged Clone
Tag:	Tag Free
Symbol:	CDK2
Synonyms:	CDKN2; p33(CDK2)
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001798, the custom clone sequence may differ by one or more nucleotides

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ATGGAGAAGCTTCCAAAAGGTGGAAAAGATCGGAGAGGGCACGTACGGAGTTGTGTACAAAGCCAGAAACA
AGTTGACGGGAGAGGTGGTGGCGCTTAAGAAAATCCGCCTGGACACTGAGACTGAGGGTGTGCCAGTAC
TGCCATCCGAGAGATCTCTGCTTAAGGAGCTTAACCATCCTAATATTGTCAAGCTGCTGGATGTCATT
CACACAGAAAATAAACTCTACCTGGTTTTTGAATTTCTGCACCAAGATCTCAAGAAATTCATGGATGCCT
CTGCTCTCACTGGCATTCTCTCCCTCATCAAGAGCTATCTGTTCCAGCTGCTCCAGGGCCTAGCTTT
CTGCCATTCTCATCGGGTCTCCACCGAGACCTTAAACCTCAGAATCTGCTTATTAACACAGAGGGGCC
ATCAAGCTAGCAGACTTTGGACTAGCCAGAGCTTTGGAGTCCCTGTTCTGACTTACACCCATGAGGTGG
TGACCCTGTGGTACCGAGCTCCTGAAATCCTCCTGGGCTGCAAAATATTATCCACAGCTGTGGACATCTG
GAGCCTGGGCTGCATCTTTGCTGAGATGGTGACTCGCCGGGCCCTATTCCCTGGAGATTCTGAGATTGAC
CAGCTCTTCCGGATCTTTCCGACTCTGGGGACCCAGATGAGGTGGTGTGGCCAGGAGTTACTTCTATGC
CTGATTACAAGCCAAGTTTCCCAAGTGGGCCCGCAAGATTTTAGTAAAGTTGTACCTCCCCTGGATGA
AGATGGACGGAGCTTGTATCGCAAATGCTGCACTACGACCCTAACAAGCGGATTTCCGCCAAGGCAGCC
CTGGCTCACCTTTCTCCAGGATGTGACCAAGCCAGTACCCCATCTTCGACTCTGA
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5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_001798 unedited CCCGCCGTTGAGCAATGGGCGGTAGGCGGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGGCGAGAGGTATACT GCGTTCATCCCACCCGGGGCCACGGTACTGGGCCCTGTTTCCCCTCCTCGGCCCCCGAGAGCCAGGG TCCGCCTTCTGCAGGGTCCCAGGCCCCGCTCCAGGGCCGGGCTGACCCGACTCGTGGCGTTCATGG AGAACTTCCAAAAGGTGAAAAAGATCGGAGAGGGCACGTACGGAGTTGTGTACAAAGCCAGAAACAAGTT GACGGGAGAGGTGGTGGCGCTTATGAAAATCCGCCTGGACACGTGAGTGGCCTGTGCCGGGACTCCTA ACTGGGGACCTCCTTGATGGCCCCCACCCCCACGGGCGGGTAGCCGTCCAGGGACCGGAAGAAAGCA GGAGGGACTTCTTAAAAGTGAAAAGTGGGTGGGGCAGTAAAGTAAAATTTACTATACTCCTGGGGAGAT AAGGGGTGGGATCATGAACTTCTCCAAGTACCGTCCGCCAATGCAATCAATCGGAGAAAGGAGTCT TGATAAGGCCAATCCTGGTGGTTTTGACCGCATGCTTCGATGAGCCCCCAGCCCTCCCTAATTC CTTCAAAGAGTTACCAGCCTGGAGCGGCATCTGATTACCTCAGTCGCTCCTCCACGGTAACAACTTGCA AGATGGCTTAAATAA
Kinase Domain Sequence:	>SC323701 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 CSCTGMGCAATGGGCGKAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAACCGTCA GAATTTTGTAAACGACTCACTATAGGGCGGCCGCAATTCGGCACGAGGGCGAGAGGTATACTGCGTTC CATCCCGACCCGGGGCCACGGTACTGGGCCCTGTTTCCCCTCCTCGGCCCCCGAGAGCCAGGGTCCGCC TTCTGCAGGGTCCCAGGCCCCGCTCCAGGGCCGGGCTGACCCG
Restriction Sites:	Please inquire
ACCN:	NM_001798
Insert Size:	3370 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_001798.2 , NP_001789.2
RefSeq Size:	2328 bp
RefSeq ORF:	897 bp

Locus ID:	1017
UniProt ID:	P24941
Cytogenetics:	12q13.2
Domains:	pkinase, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Protein Pathways:	Cell cycle, Oocyte meiosis, p53 signaling pathway, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Small cell lung cancer
Gene Summary:	<p>This gene encodes a member of a family of serine/threonine protein kinases that participate in cell cycle regulation. The encoded protein is the catalytic subunit of the cyclin-dependent protein kinase complex, which regulates progression through the cell cycle. Activity of this protein is especially critical during the G1 to S phase transition. This protein associates with and regulated by other subunits of the complex including cyclin A or E, CDK inhibitor p21Cip1 (CDKN1A), and p27Kip1 (CDKN1B). Alternative splicing results in multiple transcript variants. [provided by RefSeq, Mar 2014]</p> <p>Transcript Variant: This variant (1) represents the longest transcript and encodes the longest isoform (1).</p>