

## **Product datasheet for SC312700**

## CDK2 (NM\_052827) Human Untagged Clone

## **Product data:**

**Product Type:** Expression Plasmids

Product Name: CDK2 (NM\_052827) Human Untagged Clone

Tag: Tag Free Symbol: CDK2

Synonyms: CDKN2; p33(CDK2)

Mammalian Cell None

Selection:

Vector: pCMV6-XL5

E. coli Selection: Ampicillin (100 ug/mL)

Fully Sequenced ORF: >OriGene sequence for NM\_052827 edited

CAACATTGTTTCAAGTTGGCCAAATTGACAAGAGCGAGAGGTATACTGCGTTCCATCCCG ACCCGGGGCCACGGTACTGGGCCCTGTTTCCCCCTCCTCGGCCCCCGAGAGCCAGGGTCC GCCTTCTGCAGGGTTCCCAGGCCCCCGCTCCAGGGCCGGGCTGACCCGACTCGCTGGCGC TTCATGGAGAACTTCCAAAAGGTGGAAAAGATCGGAGAGGGCACGTACGGAGTTGTGTAC AAAGCCAGAAACAAGTTGACGGGAGAGGTGGTGGCGCTTAAGAAAATCCGCCTGGACACT GAGACTGAGGGTGTGCCCAGTACTGCCATCCGAGAGATCTCTCTGCTTAAGGAGCTTAAC CATCCTAATATTGTCAAGCTGCTGGATGTCATTCACACAGAAAATAAACTCTACCTGGTT TTTGAATTTCTGCACCAAGATCTCAAGAAATTCATGGATGCCTCTGCTCTCACTGGCATT CCTCTTCCCCTCATCAAGAGCTATCTGTTCCAGCTGCTCCAGGGCCTAGCTTTCTGCCAT TCTCATCGGGTCCTCCACCGAGACCTTAAACCTCAGAATCTGCTTATTAACACAGAGGGG GCCATCAAGCTAGCAGACTTTGGACTAGCCAGAGCTTTTGGAGTCCCTGTTCGTACTTAC ACCCATGAGGTGACTCGCCGGGCCCTATTCCCTGGAGATTCTGAGATTGACCAGCTCTTC CGGATCTTTCGGACTCTGGGGACCCCAGATGAGGTGGTGTGGCCAGGAGTTACTTCTATG CCTGATTACAAGCCAAGTTTCCCCAAGTGGGCCCGGCAAGATTTTAGTAAAGTTGTACCT CCCCTGGATGAAGATGGACGGAGCTTGTTATCGCAAATGCTGCACTACGACCCTAACAAG CGGATTTCGGCCAAGGCAGCCCTGGCTCACCCTTTCTTCCAGGATGTGACCAAGCCAGTA CCCCATCTTCGACTCTGATAGCCTTCTTGAAGCCCCCAGCCCTAATCTCACCCTCTCCTC CAGTGTGGGCTTGACCAGGCTTGGCCTTGGGCTATTTGGACTCAGGTGGGCCCTCTGAAC TTGCCTTAAACACTCACCTTCTAGTCTTGGCCAGCCAACTCTGGGAATACAGGGGTGAAA GGGGGGAACCAGTGAAAATGAAAGGAAGTTTCAGTATTAGATGCACTTAAGTTAGCCTCC

Α

**Restriction Sites:** Please inquire

**ACCN:** NM\_052827

**Insert Size:** 1300 bp



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## CDK2 (NM\_052827) Human Untagged Clone - SC312700

**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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning

into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

**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: <u>NM 052827.1</u>, <u>NP 439892.1</u>

 RefSeq Size:
 2226 bp

 RefSeq ORF:
 795 bp

 Locus ID:
 1017

 UniProt ID:
 P24941

Cytogenetics:

**Domains:** pkinase, TyrKc, S TKc

**Protein Families:** Druggable Genome, Protein Kinase

12q13.2

Protein Pathways: Cell cycle, Oocyte meiosis, p53 signaling pathway, Pathways in cancer, Progesterone-

mediated oocyte maturation, Prostate cancer, Small cell lung cancer

**Gene Summary:** 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]

Transcript Variant: This variant (2, also known as CDK2deltaT) lacks an alternate in-frame exon, compared to variant 1. The encoded isoform (2, also known as d-HSCDK2) is shorter

than isoform 1.