

## Product datasheet for **SC323449**

### CLK2 (NM\_003993) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CLK2 (NM_003993) Human Untagged Clone
Tag:	Tag Free
Symbol:	CLK2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene ORF within SC323449 sequence for NM\_003993 edited (data generated by NextGen Sequencing)

```
ATGCCGCATCCTCGAAGGTACCACTCCTCAGAGCGAGGCAGCCGGGGGAGTTACCGTGAA
CACTATCGGAGCCGAAAGCATAAGCGACGAAGAAGTCGCTCCTGGTCAAGTAGTAGTGAC
CGGACACGACGGCGTCGGCGAGAGGACAGCTACCATGTCCGTTCTCGAAGCAGTTATGAT
GATCGTTTCGTCCGACCGGAGGGTGTATGACCGGCGATACTGTGGCAGCTACAGACGCAAC
GATTATAGCCGGGATCGGGGAGATGCCTACTATGACACAGACTATCGGCATTTCCTATGAA
TATCAGCGGGAGAACAGCAGTTACCGCAGCCAGCGCAGCAGCCGGAGGAAGCACAGACGG
CGGAGGAGGCGCAGCCGACATTTAGCCGCTCATCTTCGCACAGCAGCCGGAGAGCCAAG
AGTGTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTGGGGACTGGCTACAAGAG
CGATATGAAATCGTTAGCACCTTAGGAGAGGGGACCTTCGGCCGAGTTGTACAATGTGTT
GACCATCGCAGGGGTGGGGCTCGAGTTGCCCTGATGATCATTAGAATGTGGAGAAGTAC
AAGGAAGCAGCTCGACTTGAGATCAACGTGCTAGAGAAAATCAATGAGAAAGACCCTGAC
AACAAAGACCTCTGTGTCCAGATGTTTGACTGGTTTGACTACCATGGCCACATGTGTATC
TCCTTTGAGCTTTCGGGCTTAGCACCTTCGATTTCTCAAAGACAACAACCTACCTGCC
TACCCCATCCACCAAGTCGCGCCACATGGCTTCCAGCTGTGCCAGGCTGTCAAGTTCCTC
CATGATAACAAGCTGACACATACAGACCTCAAGCCTGAAAATATTCTGTTTGTGAATTCA
GACTATGAGCTCACCTACAACCTAGAGAAGAAGCGAGATGAGCGCAGTGTGAAGAGCACA
GCTGTGCGGGTGGTAGACTTTGGCAGTGCCACCTTTGACCATGAGCACCATAGCACCATT
GTCTCCACTCGCCATTACCGAGCACCAGAAGTCATCCTTGAGTTGGGCTGGTCACAGCCT
TGTGATGTGTGGAGTATAGGCTGCATCATCTTTGAATACTATGTGGGATTCAACCTCTTC
CAGACCATGACAACAGAGAGCATCTAGCCATGATGAAAAGGATCTTGGGTCCTATCCCT
TCCCGGATGATCCGAAAGACAAGAAAGCAGAAAATATTTTACCAGGGTTCGCTGGATTGG
GATGAGAACACATCAGCTGGGCGCTATGTTTCGTGAGAACTGCAAACCGCTGCGGCGGTAT
CTGACCTCAGAGGAGAGGAACACCACAGCTTTCGATCTGATTGAAAGCATGTAGAG
TATGAACCAGCTAAGCGGCTGACCTTGGGTGAAGCCCTTCAGCATCCTTTCTTCGCCCGC
CTTCGGGCTGAGCCGCCCAACAAGTTGTGGGACTCCAGTCGGGATATCAGTCGGTGA
```

Clone variation with respect to NM\_003993.2  
575 a=>t

**5' Read Nucleotide Sequence:**

>OriGene 5' read for mutant NM\_003993 unedited  
CCCCCCCACAACAGCAAAGGGCGGTAGGCGCTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGT  
GAACCGTCAGAATTTTGAATACGACTCACTATAGGGCGGCCGGAATTCGGCACCAGGGAGAGGCCAGA  
GCCGGAGACCGAGCTGGGATCGGGCCCCGGGCGGGGGCGGTGCGAGCGGCCCAAGCAGATCTTAGGGG  
GGGGACCGAGCCGGGCGGGGCGGACTGAAGCGGAGCCCGGGAACGGGGCGGGAGGTCCCAGGGTCCCCG  
GGTTGGGGGGGTGGAGCAGTTTAGGAATAGCAGACAGCAAACCTTACAAGCCCAACGGATGAATTAT  
AGACGAAAAAAAAACATAGCAAAAAATCCCAGGCAAAAAATAACAACAAAAACAAGGGGGAGA

**Kinase Domain Sequence:**

>SC323449 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  
TTYGAGKGTTRRACTTAGAGAGGGGACTTCGGCCGAGTTGTACAATGTGTTGACCATCGCAGCCTCTCC  
YSYCAACTTACAGGGTGGGGCTCGAGTTGCCCTGATGATCATTAGAATGTGGAGAAGTACAAGGAAGC  
AGCTCGACTTGAGATCAACGTGCTAGAGAAAATCAATGAGAAAGACCCTGACAACAAGAACCTCTGTGTC  
CAGATGTTTGACTGGTTTACTACCATGGCCACATGTGTATCTCC

**Restriction Sites:**

Please inquire

**ACCN:**

NM\_003993

<b>OTI Disclaimer:</b>	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).
<b>OTI Annotation:</b>	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." <a href="#">Cell. 2008 May p536-548.</a>
<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_003993.2</a> , <a href="#">NP_003984.2</a>
<b>RefSeq Size:</b>	2175 bp
<b>RefSeq ORF:</b>	1497 bp
<b>Locus ID:</b>	1196
<b>UniProt ID:</b>	<a href="#">P49760</a>
<b>Cytogenetics:</b>	1q22
<b>Domains:</b>	pkinase, TyrKc, S_TKc
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Gene Summary:</b>	<p>This gene encodes a dual specificity protein kinase that phosphorylates serine/threonine and tyrosine-containing substrates. Activity of this protein regulates serine- and arginine-rich (SR) proteins of the spliceosomal complex, thereby influencing alternative transcript splicing. Chromosomal translocations have been characterized between this locus and the PAFAH1B3 (platelet-activating factor acetylhydrolase 1b, catalytic subunit 3 (29kDa)) gene on chromosome 19, resulting in the production of a fusion protein. Note that this gene is distinct from the Telo2 gene (GeneID:9894), which shares the CLK2 alias, but encodes a protein that is involved in telomere length regulation. There is a pseudogene for this gene on chromosome 7. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Jun 2014]</p> <p>Transcript Variant: This variant (2) uses an alternate in-frame splice site, compared to variant 1. The encoded isoform (2) is shorter than isoform 1.</p>