

Product datasheet for **SC323362**

PLK2 (NM_006622) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLK2 (NM_006622) Human Untagged Clone
Tag:	Tag Free
Symbol:	PLK2
Synonyms:	hPlk2; hSNK; SNK
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL5</u>
E. coli Selection:	Ampicillin (100 ug/mL)



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Fully Sequenced ORF: >OriGene ORF within SC323362 sequence for NM_006622 edited (data generated by NextGen Sequencing)

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ATGGAGCTTTTGGCGACTATCACCTACCAGCCAGCCGCCAGCACCAAAATGTGCGAGCAG
GCGCTGGGCAAGGGTTGCGGAGCGGACTCGAAGAAGAAGCGGCCGCCGACGCCCCCGAG
GAATCGCAGCCACCTCAGTCCCAGGCGCAAGTGCCCCGGCGGCCCTCACCACCATCAC
CACCATTGCACTCGGGGCCGGAGATCTCGGGATTATCGTGCACCCACGACTGGGAAG
CGCTACTGCCGGGCAAAGTGCTGGGAAAGGGTGGCTTTGCAAAATGTTACGAGATGACA
GATTTGACAAATAACAAAGTCTACGCCGAATGATTATTCTCACAGCAGAGTAGCTAAA
CCTCATCAAAGGAAAAGATTGACAAAGAAATAGAGCTTCACAGAATTCTTCATCATAAG
CATGTAGTGCAGTTTTACCACTACTTCGAGGACAAAGAAAACATTTACATTCTCTTGAA
TACTGCAGTAGAAGGTCAATGGCTCATATTTTAAAGCAAGAAAGGTGTTGACAGAGCCA
GAAGTTCGATACTACCTCAGGCAGATTGTGTCTGGACTGAAATACCTTCATGAACAAGAA
ATCTTGACAGAGATCTCAAACTAGGGAACTTTTTTAATGAAGCCATGGAACAAAA
GTTGGGACTTCGGTCTGGCAGCCAGGCTAGAACCCTTGGAAACAGAAAGGAGAACGATA
TGTGGTACCCAAATTATCTCTCTCCTGAAGTCCCAACAAACAAGGACATGGCTGTGAA
TCAGACATTTGGGCCCTGGGCTGTGTAATGTATACAATGTTACTAGGGAGGCCCCATTT
GAAACTACAAATCTCAAAGAACTTACAGGTGCATAAGGGAAGCAAGGTATACAATGCCA
TCCTCATTGCTGGCTCCTGCCAAGCACTTAATTGCTAGTATGTTGTCCAAAAACCCAGAG
GATCGTCCCAGTTTGGATGACATCATTGACATGACTTTTTTTTGCAGGGCTTCACTCCG
GACAGACTGTCTTCTAGCTGTTGTCATACAGTTCCAGATTTCCACTTATCAAGCCAGCT
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TATATTGACACACATAATAGAGTGTCTAAGAAGATGAAGACATCTACAAGCTTAGGCAT
GATTTGAAAAAGACTTCAATAACTCAGCAACCCAGCAAAACAGGACAGATGAGGAGCTC
CAGCCACCTACCACCACAGTTGCCAGGTCTGGAACACCCGAGTAGAAAACAAGCAGCAG
ATTGGGGATGCTATTCGGATGATAGTCAGAGGGACTCTTGGCAGCTGTAGCAGCAGCAGT
GAATGCCTTGAAGACAGTACCATGGGAAGTGTGACAGACACAGTGGCAAGGGTTCTTCGG
GGATGTCTGGA AAAACATGCCGGAAGCTGATTGCATTCCAAAGAGCAGCTGAGCACATCA
TTTCAGTGGGTCACCAAATGGGTTGATTACTCTAACAATATGGCTTCGGGTACCAGCTC
TCAGACCACCCGTCGGTGTCTTTTCAACAATGGTGCTCACATGAGCCTCCTTCCAGAC
AAAAAACAGTTCACTATTACGCAGAGCTTGGCCAATGCTCAGTTTTCCAGCAACAGAT
GCTCCTGAGCAATTTATTAGTCAAGTGACGGTGTGAAATACTTTTCTCATTACATGGAG
GAGAACCCTCATGGATGGTGGAGATCTGCCTAGTGTACTGATATTCGAAGACCTCGGCTC
TACCTCCTCAGTGGCTAAAATCTGATAAGGCCCTAATGATGCTCTTTAATGATGGCACC
TTTCAGGTGAATTTCTACCATGATCATAAAAAATCATCATCTGTAGCCAAAATGAAGAA
TACCTTCTCACCTACATCAATGAGGATAGGATATCTACAACCTTTCAGGCTGACAACCTG
CTGATGTCTGGCTGTTTCATCAGAATTA AAAATCGAATGGAATATGCCCTGAACATGCTC
TTACAAAGATGTAAGTGA
    
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Clone variation with respect to NM_006622.2
 332 a=>t;333 a=>g;867 t=>c;900 g=>a;1548 t=>c

5' Read Nucleotide Sequence:	>OriGene 5' read for mutant NM_006622 unedited CCCGCCGTTGAGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGTTTAGTGAA CCGTCAGAATTTTGTAAACGACTACTATAGGGCGGCCGGAATTCGGCACGAGGCCGGGTGTTGGGT GCTAGTCGGCACCAGAGGCAAGGGTGGCAGGACCACGGCCGGCTCGGACGTGTGACCCGCGCTAGGGGGT GGCAGCGGGCAGTGGCGGGCGGCAAGGCGACCATGGAGCTTTTGGGACTATCACCTACCAGCCAGCCGC CAGCACCAAAATGTGCGAGCAGGCGCTGGGCAAGGGTTGCGGAGCGGACTCGAAGAAGAAGCGGGTCGT GTCGGCCCCCGAGGATTGCGAGCCACCTCAGTCCCAGGCGCAGGTGCCCGCGGCCCTACCACC ATCACCACCATTGCACTCGGGGCCGAAATCTCGCGGATTATCGTCGACCCACGACTGGGAGCCGCTAC TGCCGGGGCAAAGTGCTGGGAAGGGTTGGCTTTGCAAATGGTTACGAAAAGCAGGATTGCCAATACAAAG CCAGCCCCATTAATTCTTAACGAGATAGTTAACCTATCAAGGAAAGATGCAAGAATAGCCTCACAG AATCTCTCACAGCAGTGAGCGAGTTTCCCTACTCAGAGACAAGAACATTACTCCTGGATCGCGATAAGTC AGTGCTAATTGACGAAGTTTACACCAATCTATCCTCAGATTGTGGCAGACCTGACGAAGTGGCATTCC ATGGACTTCTATGACGGCATGGACCCCGCGCGCACTGACACGACAAGTGGCCTGC
Kinase Domain Sequence:	>SC323362 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 GKWSSRRRSMWTCGTGCGMGCAATGGGCGGTAGGCGTGTACGGTGGGAGGTCTATATAAGCAGAGCTCGT TTAGTGAACCGTCAGAATTTTGTAAACGACTACTATAGGGCGGCCGGAATTCGGCACGAGGCCGGGG TGTTGGGTGCTAGTCGGCACCAGAGGCAAGGGTGGCAGGACCACGGCCGGCTCGGACGTGTACCCGCGC TAGGGGGTGGCAGCGGGCAGTGGGGCGGCAAGGCGACCATGGA
Restriction Sites:	Please inquire
ACCN:	NM_006622
Insert Size:	2690 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
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:	<u>NM_006622.1, NP_006613.1</u>
RefSeq Size:	2972 bp
RefSeq ORF:	2058 bp
Locus ID:	10769
UniProt ID:	<u>Q9NYY3</u>
Cytogenetics:	5q11.2
Domains:	pkinase, POLO_box, TyrKc, S_TKc
Protein Families:	Druggable Genome, Protein Kinase
Gene Summary:	<p>The protein encoded by this gene is a member of the polo family of serine/threonine protein kinases that have a role in normal cell division. This gene is most abundantly expressed in testis, spleen and fetal tissues, and its expression is inducible by serum, suggesting that it may also play an important role in cells undergoing rapid cell division. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Nov 2011]</p> <p>Transcript Variant: This variant (1) represents the predominant transcript, and encodes the longer isoform (1).</p>