

## Product datasheet for **RG230885**

### **PLK4 (NM\_001190801) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	PLK4 (NM_001190801) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PLK4
Synonyms:	MCCRP2; SAK; STK18
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG230885 representing NM\_001190801  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGACCTGCATCGGGGAGAAGATCGAGGATTTTAAAGTTGGAATCTGCTTGGTAAAGGATCATTTG  
 CTGGTGTCTACAGAGCTGAGTCCATTCACTGGTTTGAAGTTGCAATCAAATGATAGATAAGAAAGC  
 CATGTACAAAGCAGGAATGGTACAGAGAGTCCAAATGAGGTGAAAATACATTGCCAATTGAAACATCCT  
 TCTATCTTGGAGCTTTATAACTATTTTGAAGATAGCAATTATGTGTATCTGGTATTAGAAATGTGCCATA  
 ATGGAGAAATGAACAGGTATCTAAAGAATAGAGTGAAACCCTTCTCAGAAAATGAAGCTCGACACTTCAT  
 GCACCAGATCATCACAGGGATGTTGTATCTTCATTCTCATGGTATACTACACCGGACCTCACACTTTCT  
 AACCTCTACTGACTCGTAATATGAACATCAAGATTGCTGATTTTGGGCTGGCAACTCAACTGAAAATGC  
 CACATGAAAAGCACTATACATTATGTGGAACCTCAACTACATTTACCAGAAAATGGCACTCGAAGTGC  
 ACATGGCCTTGAATCTGATGTTTGGTCCCTGGGCTGTATGTTTTATACATTACTTATCGGGAGACCACC  
 TTGCACACTGACACAGTCAAGAACACATTAATAAAGTAGTATTGGCAGATTATGAAATGCCATCTTTTT  
 TGCAATAGAGGCCAAGGACCTTATTCACCAGTACTTCGTAGAAAATCCAGCAGATCGTTTAAAGTCTGTC  
 TTCAGTATTGGACCATCCTTTTTATGCCCAGAAATCTTCAACAAAAGTAAAGATTTAGGAACTGTGGAA  
 GACTCAATTGATAGTGGGCATGCCACAATTTCTACTGCAATTACAGCTTCTTCCAGTACCAGTATAAGTG  
 GTAGTTTATTTGACAAAAGAAGACTTTTGGATTGGTCAGCCACTCCCAAATAAAATGACTGTATTTCCAAA  
 GAATAAAAGTTCAACTGATTTTTCTTCTCAGGAGATGGAACAGTTTTTATACTCAGTGGGGAAATCAA  
 GAAACCAGTAATAGTGAAGGGGAAGAGTAATTCAGATGCAGAAGAAAGGCCACATTCTCGATACCTTC  
 TAGAGCTTATTCTCTGATAGATCTGGCACTTCAATAGTCAGTCTCAAGCAAAAACATACAATGGA  
 ACGATGTCACTCAGCAGAAATGCTTTCAGTGTCCAAAAGATCAGGAGGAGGTGAAAATGAAGAGAGGTAC  
 TCACCCACAGACAACAATGCCAACATTTTTAACTTCTTTAAAGAAAAGACATCCAGTAGTTCTGGATCTT  
 TTGAAAGACCTGATAACAATCAAGCACTCTCCAATCATCTTTGTCCAGGAAAACTCCTTTTCCATTTGC  
 AGACCCGACACCTCAGACTGAAACCGTACAACAGTGGTTTGGAAATCTGCAAATAAATGCTCATTAAAGA  
 AAAACTACTGAATATGACAGCATCAGCCAAAACCGGGACTTCCAGGGCCATCCAGATTTGCAGAAGGACA  
 CATCAAAAATGCCTGGACTGATACAAAAGTCAAAAAGAAGTCTGATGCTTCTGATAATGCACATCTGT  
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 AAAGGCTGTGGTGAAGCATACTTGATTGAGAGGAGTGTGTGGAGCTTGTAAAGGAGTATGCATCTCAA  
 GAATATGTGAAAGAAGTTCTTCCAGATATCTAGTGTGAAATACGATCACTATTTATTATCCAAATGGTG  
 GTAGAGGTTTTCTCTTGTCTGATAGACCACCTCACCTACTGACAACATCAGTAGGTACAGCTTTGACAA  
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 AGGTTTGGTTTTATGATGGGTAATAACACAAAACAGAAGATTTTATTAGGTTGAAAAGACAGG  
 GAAGCTTACACTTAAAAAGTGAAGTGAAGTTAATAGCTTGAAGAGGAGATAAAAATGTATATGGAC  
 CATGCTAATGAGGTCATCGTATTTGTTTAGCACTGGAATCCATAATTTTCAAGAAGGAAAAGGAAAATA  
 GGAGTGTCCCTTTTCCCAATAATCATAGGAAGAAAACCTGGTAGTACTAGTTACCTAAGGCCTTATC  
 ACCTCCTCCTTCTGTGGATTCAAATTACCAACGAGAGAGAGAGCATCTTTCAACAGAATGGTCATGCAT  
 AGTGTCTTCTCCAACACAGGCACCAATCCTTAATCCCTCTATGGTTACAAAATGAAGGACTTGGTCTTA  
 CAACTACAGCTTCTGGAACAGACATCTCTTAATAGTCTAAAAGATTGTCTTCAAATCAGCACAACCT  
 TTTGAAATCTGTTTTGTGAAAATGTTGGTGGGCTACACAGTTAACTAGTGGAGCTGTGTGGGTTTCCAG  
 TTTAATGATGGGTCAGTTGGTTGTGCAGGCAGGAGTGTCTTCTATCAGTTATACCTCACCAAATGGTC  
 AAACAACAGGTATGGAGAAAATGAAAATACCAGACTACATCAAACAGAAATTACAGTGTCTGTCTTC  
 CATCTTTTGTGTTTTCTAATCCGACTCCTAATTTTCAT

**ACGCGT**ACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:** >RG230885 representing NM\_001190801  
 Red=Cloning site Green=Tags(s)

MATCIGEKIEDFKVGNLLGKGSFAGVYRAESIHTGLEVAIKMIDKKAMYKAGMVQRVQNEVKIHCQLKHP  
 SILELYNYFEDSNYYVLVLEMCHNGEMNRYLKNRVKPFSENEARHFHQIITGMLYLHSHGILHRDLTLS  
 NLLLTRNMNIKIADFLATQLKMPHEKHHTLCGTPNYISPEIATRSAGHLESDVWSLGCMFYTLIGRPP  
 FDTDTVKNTLNKVVVLADYEMPSFLSIEAKDLIHQLLRNPADRLSLSSVLDHPFMSRNSSTKSKDLGTVE  
 DSIDSGHATISTAITASSSTSISGSLFDKRRLLIGQPLPNKMTVFPKNKSSSTDFSSSGDGNFYTQWGNQ  
 ETSNSGRGRVIQDAEERPHSRYLRRAYSDDRSRGTNSQSQAQTYTMERCHSAEMLSVSKRSGGGENEERY  
 SPTDNNANIFNFFKEKTSSSSGSFERPDNNQALSNHLCPGKTPFPFADPTPQTETVQQWFGNLQINAHLR  
 KTTEYDSISPNRDFQGHFDLQKDTSKNAWTDTKVKKNSDASDNAHSVKQNTMKYMTALHSKPEIIQQEC  
 VFGSDPLSEQSKTRGMEPPWGYQNRRLRSITSPLVAHRLKPIRQKTKKAVVSILDSEEVVELVKEYASQ  
 EYVKEVLQISSDNTITIIYPNGGRGFPLADRPSPDNI SRYSDNLPEKYWRKYQYASRFVQLVRSKS  
 PKITYFTRYAKCILMENSFGADFEVWFYDGVKIHKTEDFIQVIEKTKGKSYTLKSESEVNSLKEEIKMYMD  
 HANEGHRICLALESIIEEERKTRSAFPFPIIIGRKPSTSSPKALSPPPSVDSNYPTRERASFNRMMVH  
 SAASPTQAPILNPSMVTNEGLGLTTTASGTDISSNSLKDCLPKSAQLLKS VYFVKNVGVATQLTSGAVVWQ  
 FNDGSQLVVQAGVSSISYTPNGQTTRYGENEKL PDYIKQLQLCLSSILLMFSNPTPNFH

TRTRPLE – GFP Tag – V

**Restriction Sites:**

SgfI-MluI

**Cloning Scheme:**

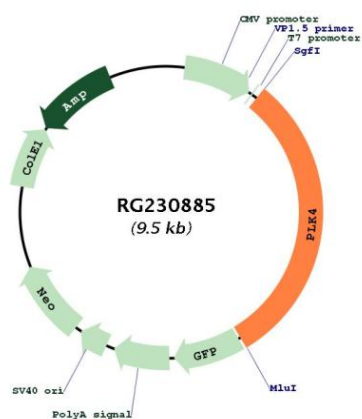


**ACCN:** NM\_001190801

**ORF Size:** 2913 bp

<b>OTI Disclaimer:</b>	<p>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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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. <a href="#">More info</a></p>
<b>OTI Annotation:</b>	<p>This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.</p>
<b>Components:</b>	<p>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).</p>
<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>	<p><a href="#">NM_001190801.1</a>, <a href="#">NP_001177730.1</a></p>
<b>RefSeq Size:</b>	<p>3693 bp</p>
<b>RefSeq ORF:</b>	<p>2790 bp</p>
<b>Locus ID:</b>	<p>10733</p>
<b>UniProt ID:</b>	<p><a href="#">O00444</a></p>
<b>Cytogenetics:</b>	<p>4q28.1</p>
<b>Protein Families:</b>	<p>Druggable Genome, Protein Kinase</p>
<b>Gene Summary:</b>	<p>This gene encodes a member of the polo family of serine/threonine protein kinases. The protein localizes to centrioles, complex microtubule-based structures found in centrosomes, and regulates centriole duplication during the cell cycle. Three alternatively spliced transcript variants that encode different protein isoforms have been found for this gene. [provided by RefSeq, Jun 2010]</p>

## Product images:



Circular map for RG230885