

Product datasheet for **RG233069**

PLK2 (NM_001252226) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	PLK2 (NM_001252226) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PLK2
Synonyms:	hPlk2; hSNK; SNK
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG233069 representing NM_001252226
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGGAGCTTTTGGGACTATCACCTACCAGCCAGCCGCCAGCACAAAATGTGCGAGCAGGCGCTGGGCA
 AGGGTTGCGGAGCGGACTCGAAGAAGAAGCGGCCGCCAGCCCCGAGGAATCGCAGCCACCTCAGTC
 CCAGGCGCAAGTCCCCCGGCGATCTCGCGGATTATCGTCGACCCACGACTGGGAAGCGCTACTGCCGG
 GGCAAAGTGTGGAAAGGGTGGCTTTGCAAAATGTTACGAGATGACAGATTTGACAAAATAACAAAGTCT
 ACGCCGCAAAAATTATTCCTCACAGCAGAGTAGCTAAACCTCATCAAAGGGAAAAGATTGACAAAAGAAAT
 AGAGCTTCACAGAATTCTTCATCATAAGCATGTAGTGCAGTTTTACCCTACTTCGAGGACAAAAGAAAAC
 ATTTACATTCTCTTGAATACTGCAGTAGAAGGTCAATGGCTCATATTTTGAAGCAAGAAAGGTGTTGA
 CAGAGCCAGAAGTTCGATACTACCTCAGGCAGATTGTGTCTGGACTGAAATACCTTCATGAACAAGAAAT
 CTTGCACAGAGATCTCAAACCTAGGGAACTTTTTATTAATGAAGCCATGGAACAAAAGTTGGGGACTTC
 GGTCTGGCAGCCAGGCTAGAACCCTTGGAAACAGAAAGGAGAACGATATGTGGTACCCCAAAATTATCTCT
 CTCTGAAAGTCTCAACAAAAGGACATGGCTGTGAATCAGACATTTGGGCCCTGGGCTGTGTAATGTA
 TACAATGTTACTAGGGAGGCCCCATTTGAAACTACAAATCTCAAAGAACTTATAGGTGCATAAGGGAA
 GCAAGGTATACAATGCCGTCCTCATTGTGGCTCCTGCCAAGCACTTAATTGCTAGTATGTTGTCCAAAA
 ACCCAGAGGATCGTCCAGTTTGGATGACATCATTGACATGACTTTTTTTTTGCAGGGCTTCACTCCGGA
 CAGACTGTCTTCTAGCTGTTGTCATACAGTTCAGATTTCCACTTATCAAGCCAGCTAAGAATTTCTTT
 AAGAAAGCAGCTGCTGCTTTTTTGGTGGCAAAAAGACAAAAGCAAGATATATTGACACACATAATAGAG
 TGTCTAAAGAAGATGAAGACATCTACAAGCTTAGGCATGATTTGAAAAAGACTTCAATAACTCAGCAACC
 CAGCAAAACACAGGACAGATGAGGAGCTCCAGCCCTACCACCACAGTTGCCAGGCTGGAAACACCCGCA
 GTAGAAAACAAGCAGCAGATTGGGGATGCTATTTCGGATGATAGTCAGAGGGACTCTTGGCAGCTGTAGCA
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 ATGTCTGGAAAACATGCCGGAAGCTGATTGCATTTCCAAAGAGCAGCTGAGCACATCATTTCAGTGGGTC
 ACCAAATGGGTTGATTACTCTAACAATATGGCTTTGGTACCAGCTCTCAGACCACCCGTCGGTGTCC
 TTTTCAACAATGGTGCTCACATGAGCCTCCTCCAGACAAAAAACAGTTCCTACTATTACGCAGAGCTTGG
 CCAATGCTCAGTTTTCCAGCAACAGATGCTCCTGAGCAATTTATTAGTCAAGTGACGGTGTGAAATAC
 TTTTCTCATTACATGGAGGAGAACCTCATGGATGGTGGAGATCTGCCTAGTGTACTGATATTGGAAGAC
 CTGGGCTCTACCTCCTCAGTGGCTAAAATCTGATAAGGCCCTAATGATGCTCTTAATGATGGCACCTT
 TCAGGTGAATTTCTACCATGATCATACAAAATCATCATCTGTAGCCAAAATGAAGAATACCTTCTCACC
 TACATCAATGAGGATAGGATATCTACAACCTTTCAGGCTGACAACCTCTGCTGATGTCTGGCTGTTTCATCAG
 AATTAATAAATCGAATGGAATATGCCCTGAACATGCTCTTACAAAAGATGTAAC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence: >RG233069 representing NM_001252226
 Red=Cloning site Green=Tags(s)

MELLRTITYQPAASTKMCEQALGKGCADSKKKRPPQPPEESQPPQSQAQVPPAISRIIVDPTTGKRYCR
 GKVLGKGGFAKCYEMTDLTNNKVYAAKIIPHSRVAKPHQREKIDKEIELHRILHHKHVVQFYHYFEDKEN
 IYILLEYSRRSMAHILKARKVLTEPEVRYLRQIVSGLKYLHEQEILHRDLKLGNTFFINEAMELKVGF
 GLAARLEPLEHRRRTICGTPNYLSPEVLNKQGHGCESDI WALGCVMYTMLLGRPPFETTNLKETYRCIRE
 ARYTMPSSLLAPAKHLIASMLSKNPEDRPSLDDIIRHDFFLQGFTPDRLSSSCCHTVPDFHLSPPAKNFF
 KAAAAALFGGKDKARYIDTHNRVSKEDEDIYKLRHDLKKT SITQQPSKHRTDEELQPPTTTVARSGTPA
 VENKQQIGDAIRMIVRGT LGSCSSSECLEDESTMGVADTVARVLRGCLNMPEADCIPKEQLSTSFQWV
 TKWVDYSNKYGFYQLSDHTVGVLFNNGAHMSLLPDKKTVHYAELGQCSVFPATDAPEQFI SQVTVLKY
 FSHYMEENLMDGGDLPSVTDIRRPRLYLLQWLKSDKALMMLFNDGTFQVNFYHDHTKIIICSQNEEYLLT
 YINEDRISTTFRLLTLLMSGCSSELKNRMEYALNMLLQRCN

TRTRPLE - GFP Tag - V

Restriction Sites:

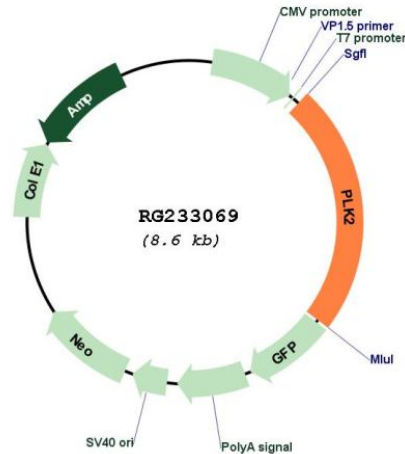
SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



Plasmid Map:



ACCN: NM_001252226

ORF Size: 2013 bp

OTI Disclaimer: 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

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: [NM_001252226.1](#), [NP_001239155.1](#)

RefSeq Size: 2808 bp

RefSeq ORF: 2016 bp

Locus ID: 10769

UniProt ID: [Q9NYY3](#)

Cytogenetics: 5q11.2

Protein Families: Druggable Genome, Protein Kinase

Gene Summary: 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]