

## Product datasheet for **RG236823**

### CDK2 (NM\_001290230) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CDK2 (NM_001290230) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CDK2
Synonyms:	CDKN2; p33(CDK2)
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG236823 representing NM_001290230. Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGAGAACTTCCAAAAGGTGGAAAAGATCGGAGAGGGCACGTACGGAGTTGTGTACAAAGCCAGAAAAC
AAGTTGACGGGAGAGGTGGTGGCGCTTAAGAAAATCCGCCTGGACACGCTGCTGGATGTCATTACACACA
GAAAATAAACTCTACCTGGTTTTTGAATTTCTGCACCAAGATCTCAAGAAATTCATGGATGCCTCTGCT
CTCACTGGCATTCTCTCCCTCATCAAGAGCTATCTGTTCCAGCTGCTCCAGGGCCTAGCTTTCTGC
CATTCTCATCGGGTCTCCACCGAGACCTAAACCTCAGAATCTGCTTATTAACACAGAGGGGGCCATC
AAGCTAGCAGACTTTGGACTAGCCAGAGCTTTTGGAGTCCCTGTTTCGACTTACACCCATGAGGTGACT
CGCCGGGCCCTATTCCCTGGAGATTCTGAGATTGACCAGCTTTCCGGATCTTTCGGACTCTGGGGACC
CCAGATGAGGTGGTGTGGCCAGGAGTTACTTCTATGCCTGATTACAAGCCAAGTTTCCCCAAGTGGGCC
CGGCAAGATTTTAGTAAAGTTGTACCTCCCTGGATGAAGATGGACGGAGCTTGTATCGAAATGCTG
CACTACGACCCTAACAGCGGATTTCCGGCAAGGCAGCCCTGGCTCACCCTTTCTCCAGGATGTGACC
AAGCCAGTACCCATCTTCGACTC
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTAAAC
```



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**Protein Sequence:** >Peptide sequence encoded by RG236823  
 Blue=ORF Red=Cloning site Green=Tag(s)

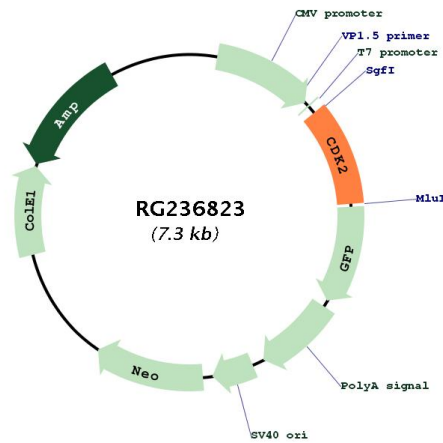
MENFQKVEKIGEGTYGVVYKARNKLTGEVVALKKIRLDTLLDVIHTENKLYLVFEFLHQDLKKFMDASA  
 LTGIPLPLIKSYLFQLLQGLAFCHSHRVLHRDLKPQNLLINTEGAIKLADFLARAFGVPVRYTHEVT  
 RRALFPDSEIDQLFRIFRTLGTPEVVWPGVTSMPDYKPSFPKWARQDFSKVVPPLDEDDGRSLLSQML  
 HYDPNKRI SAKAALAHPPFFQDVTKPVPHLRL  
 TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV  
 MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED  
 SVIFTDKIIRS NATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVD SHMHFKSAIHPSILQNGGPMFA  
 FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**Plasmid Map:**



**ACCN:** NM\_001290230

<b>ORF Size:</b>	714 bp
<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>RefSeq:</b>	<a href="#">NM_001290230.2</a>
<b>RefSeq Size:</b>	2121 bp
<b>RefSeq ORF:</b>	717 bp
<b>Locus ID:</b>	1017
<b>UniProt ID:</b>	<a href="#">P24941</a>
<b>Cytogenetics:</b>	12q13.2
<b>Protein Families:</b>	Druggable Genome, Protein Kinase
<b>Protein Pathways:</b>	Cell cycle, Oocyte meiosis, p53 signaling pathway, Pathways in cancer, Progesterone-mediated oocyte maturation, Prostate cancer, Small cell lung cancer
<b>MW:</b>	27.6 kDa
<b>Gene Summary:</b>	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]