

Product datasheet for **RG234111**

Chk1 (CHEK1) (NM_001244846) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Chk1 (CHEK1) (NM_001244846) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Chk1
Synonyms:	CHK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG234111 representing NM_001244846 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGCAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCCTGGGAGAAGGTGCCTATGGAGAAGTTC
AACTTGCTGTGAATAGAGTAACTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGA
CTGTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTC
TATGGTCACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTG
ACAGAATAGAGCCAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTCCATCAACTCATGGCAGG
GGTGGTTTATCTGCATGGTATTGGAATAACTCACAGGGATATTAACCAGAAAATCTTCTGTTGGATGAA
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TGAACAAGATGTGTGGTACTTTACCATATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTTTCATGCAGA
ACCAGTTGATGTTTGGTCTGTGGAATAGTACTTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAA
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TCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTGAGAATCCATCAGCAAGAATTACCATTCC
AGACATCAAAAAGATAGATGGTACAACAACCCTCAAGAAAGGGGCAAAAAGGCCCGAGTCACTTCA
GGTGGTGTGCAGAGTCTCCAGTGGATTTTCTAAGCACATTCAATCCAATTTGGACTTCTCCAGTAA
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ATGGGATACCAGCCCCTATACATTGATAAATTGGTACAAGGGATCAGCTTTTCCAGCCCACATGTCCCT
GATCATATGCTTTTGAATAGTCAGTTACTTGGACCCCAGGATCCTCACAGAACCCTGGCAGCGGTTGG
TCAAAAAGAAATGACACGATTCTTTACAAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTG
TGAGAAGTTGGGCTATCAATGGAAGAAAAGTTGTATGAATCAGGGTATGGATTGGAGTTCAAGAGACAC
TTCCTGAAGATTAAGGGAAGCTGATTGATATTGTGAGCAGCCAGAAGATTTGGCTTCTGCCACA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG234111 representing NM_001244846
Red=Cloning site Green=Tags(s)

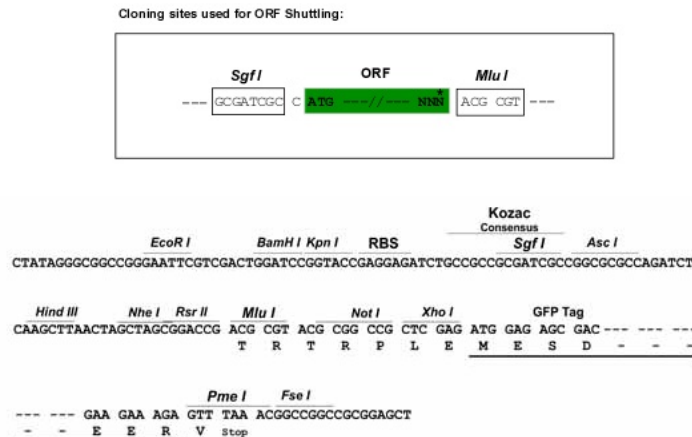
MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEAVAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKF
 YGHRREGNIQYLFLFYCSGGELFDRIEPDIGMPEPDAQRFHFHQLMAGVVYLHGIGITHRDIKPENLLLDE
 RDNLKISDFGLATVFRYNNRERLLNKMCGTLPYVAPPELLKRREFHAEPVDVWSCGIVLTAMLAGELPWDQ
 PSDSCQEYSDWKEKKTLYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTS
 GGVSESPSGFSKHIQSNLDFSPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLVQGISFSQPTCP
 DHMLLNSQLLGTGPGSSQNPWQRLVKRMTRFFTKLDADKSYQCLKETCEKLG YQWKSCMNQDGLFKRHR
 FLKIKGKLIIDIVSSQKIWL PAT

TRTRPLE - GFP Tag - V

Restriction Sites:

SgfI-MluI

Cloning Scheme:



ACCN: NM_001244846

ORF Size: 1326 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_001244846.1](#), [NP_001231775.1](#)

RefSeq Size: 4072 bp

RefSeq ORF: 1329 bp

Locus ID: 1111

UniProt ID: [O14757](#)

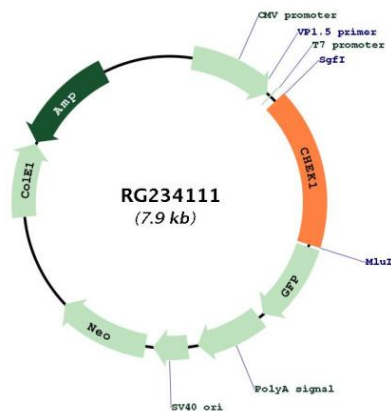
Cytogenetics: 11q24.2

Protein Families: Druggable Genome, Protein Kinase, Stem cell - Pluripotency

Protein Pathways: Cell cycle, p53 signaling pathway

Gene Summary: The protein encoded by this gene belongs to the Ser/Thr protein kinase family. It is required for checkpoint mediated cell cycle arrest in response to DNA damage or the presence of unreplicated DNA. This protein acts to integrate signals from ATM and ATR, two cell cycle proteins involved in DNA damage responses, that also associate with chromatin in meiotic prophase I. Phosphorylation of CDC25A protein phosphatase by this protein is required for cells to delay cell cycle progression in response to double-strand DNA breaks. Several alternatively spliced transcript variants have been found for this gene. [provided by RefSeq, Oct 2011]

Product images:



Circular map for RG234111