

Product datasheet for **RG225810**

Chk1 (CHEK1) (NM_001114121) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Chk1 (CHEK1) (NM_001114121) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CHEK1
Synonyms:	CHK1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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ORF Nucleotide Sequence:

>RG225810 representing NM_001114121
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGCAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCCTGGGAGAAGGTGCCTATGGAGAAGTTC
 AACTTGCTGTGAATAGAGTAAGTGAAGAAGCAGTCGCAGTGAAGATTGTAGATATGAAGCGTGCCGTAGA
 CTGTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAAATGCTAAATCATGAAAATGTAGTAAAATTC
 TATGGTCACAGGAGAGAAGGCAATATCCAATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTG
 ACAGAATAGAGCCAGACATAGGCATGCCTGAACCAGATGCTCAGAGATTCTCCATCAACTCATGGCAGG
 GGTGGTTTATCTGCATGGTATTGGAATAACTCACAGGGATATTAACCAGAAAATCTTCTGTTGGATGAA
 AGGGATAACCTCAAAATCTCAGACTTTGGCTTGGCAACAGTATTCGGTATAATAATCGTGAGCGTTTGT
 TGAACAAGATGTGTGGTACTTTACCATATGTTGCTCCAGAACTTCTGAAGAGAAGAGAATTCATGCAGA
 ACCAGTTGATGTTGGTCTGTGGAATAGTACTTACTGCAATGCTCGCTGGAGAATTGCCATGGGACCAA
 CCCAGTGACAGCTGTGAGGATATTCTGACTGGAAAGAAAAAACAATACCTCAACCCCTGGAAAAA
 TCGATTCTGCTCCTCTAGCTCTGCTGCATAAAATCTTAGTTGAGAATCCATCAGCAAGAATTACCATTCC
 AGACATCAAAAAGATAGATGGTACAACAACCCCTCAAGAAAGGGGCAAAAAGGCCCGGAGTCACTTCA
 GGTGGTGTGCAGAGTCTCCAGTGGATTTTCTAAGCACATTCAATCCAATTTGGACTTCTCTCCAGTAA
 ACAGTGCTTCTAGTGAAGAAAATGTGAAGTACTCCAGTTCTCAGCCAGAACCCTGGCAGGTTTCTCCT
 ATGGGATACCAGCCCCTCATACATTGATAAATGGTACAAGGGATCAGCTTTTCCAGCCCACATGTCCT
 GATCATATGCTTTTGAATAGTCAGTTACTTGGCACCCAGGATCCTCACAGAACCCTGGCAGCGGTTGG
 TCAAAAGAATGACACGATTCTTTACCAAATGGATGCAGACAAATCTTATCAATGCCTGAAAGAGAGATTG
 TGAGAAGTTGGGCTATCAATGGAAGAAAAGTTGTATGAATCAGGTTACTATATCAACAACCTGATAGGAGA
 AACAAATAACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGACTTCCGCTTT
 CTAAGGGTATGGATTGGAGTTCAAGAGACACTTCTGAAGATTAAGGGGAGCTGATTGATATTGTGAG
 CAGCCAGAAGATTTGGCTTCTGCCACA

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG225810 representing NM_001114121
 Red=Cloning site Green=Tags(s)

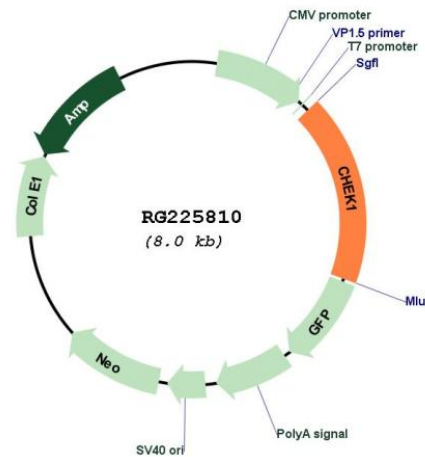
MAVPFVEDWDLVQTLGEGAYGEVQLAVNRVTEEA VAVKIVDMKRAVDCPENIKKEICINKMLNHENVVKF
 YGHRREGNIQYLFLEYCSGGELFDRIEPDIGMPEPDAQRFHQLMAGVVYLHGIGITHRDIKPENLLLDE
 RDNLKISDFGLATVFRYNNRERLLNKMCGTLPYVAPELLKRREFHAEPVDVWSCGIVLTAMLGELPWDQ
 PSDSCQEYSDWKEKKTLYLNPWKKIDSAPLALLHKILVENPSARITIPDIKKDRWYNKPLKKGAKRPRVTS
 GGVSESPSGFSKHIQSNLDFSPVNSASSEENVKYSSSQPEPRTGLSLWDTSPSYIDKLVQGISFSQPTCP
 DHMLLNSQLLGTGSSQNPWQRLVKRMTRFFTKLDADKSYQCLKETCEKLG YQWKSCMNQVTISTDRR
 NNKLIFKVNLLMDDKILVDFRLSKGDGLEFKRHLKIKGKLIIDIVSSQKIWL PAT

TRTRPLE – GFP Tag – V

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:

Plasmid Map:


ACCN: NM_001114121

ORF Size: 1428 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:	<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:	NM_001114121.2 , NP_001107593.1
RefSeq Size:	2725 bp
RefSeq ORF:	1431 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:	<p>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]</p>