

## Product datasheet for SC119355

### Chk1 (CHEK1) (NM\_001274) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Chk1 (CHEK1) (NM_001274) Human Untagged Clone
Tag:	Tag Free
Symbol:	Chk1
Synonyms:	CHK1
Mammalian Cell Selection:	None
Vector:	<u>pCMV6-XL4</u>
E. coli Selection:	Ampicillin (100 ug/mL)

**Fully Sequenced ORF:** >OriGene ORF sequence for NM\_001274 edited  
 ATGGCAGTGCCCTTTGTGGAAGACTGGGACTTGGTGCAAACCCGGGAGAAGGTGCCTAT  
 GGAGAAGTTCAACTTGTGTGAATAGAGTAACTGAAGAAGCAGTCGCAGTGAAGATTGTA  
 GATATGAAGCGTGCCGTAGACTGTCCAGAAAATATTAAGAAAGAGATCTGTATCAATAAA  
 ATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTCACAGGAGAGAAGCAATATCCAA  
 TATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGCCAGACATA  
 GGCATGCCTGAACCAGATGCTCAGAGATTCTTCCATCAACTCATGGCAGGGGTGGTTTAT  
 CTGCATGGTATTGGAATAACTCACAGGGATATTAACCAGAAAATCTTCTGTTGGATGAA  
 AGGGATAACCTCAAAATCTCAGACTTTGGCTTGGCAACAGTATTTCCGGTATAATAATCGT  
 GAGCGTTTGTGAACAAGATGTGTGGTACTTTACCATATGTTGCTCCAGAACTTCTGAAG  
 AGAAGAGAATTTTCATGCAGAACCAGTTGATGTTTGGTCCCTGTGGAATAGTACTTACTGCA  
 ATGCTCGCTGGAGAATTGCCATGGGACCAACCCAGTGACAGCTGTGAGGAGTATTCTGAC  
 TGGAAAGAAAAAAAACATACCTCAACCCTTGGAAAAAATCGATTCTGCTCCTCTAGCT  
 CTGCTGCATAAAATCTTAGTTGAGAATCCATCAGCAAGAATTACCATTCCAGACATCAA  
 AAAGATAGATGGTACAACAAACCCTCAAGAAAGGGGCAAAAAGGCCCGAGTCACTTCA  
 GGTGGTGTGTCAGAGTCTCCAGTGGATTTTCTAAGCACATTCAATCCAATTTGGACTTC  
 TCTCCAGTAAACAGTGTCTTAGTGAAGAAAATGTGAAGTACTCCAGTTCAGCCAGAA  
 CCCCACAGGCTTTTCCATATGGGATACCAGCCCCTCATACATTGATAAATTGGTACAA  
 GGGATCAGCTTTTCCAGCCACATGTCCTGATCATATGCTTTTGAATAGTCAGTTACTT  
 GGCACCCAGGATCCTCACAGAACCCTTGGCAGCGGTTGGTCAAAAAGAATGACACGATTC  
 TTTACCAAAATTGGATGCAGACAAATCTTATCAATGCCTGAAAGAGACTTGTGAGAAGTTG  
 GGCTATCAATGGAAGAAAAGTTGTATGAATCAGGTTACTATATCAACAACTGATAGGAGA  
 AACAAATAACTCATTTTCAAAGTGAATTTGTTAGAAATGGATGATAAAATATTGGTTGAC  
 TTCCGGCTTTCTAAGGGTGTGGATTGGAGTTCAAGAGACTTCTGAAGATTAAGGG  
 AAGCTGATTGATATTGTGAGCAGCCAGAAGGTTTGGCTTCTGCCACATGA



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<b>5' Read Nucleotide Sequence:</b>	>OriGene 5' read for NM_001274 unedited NCACGGTTCATGATTTGTGATACGACTTTATCTGAGGGCGGCCGGATTCCGGCAGGAGG CATGGCAGTGCCTTTTGTGCGAAGATGGGACTTGGTGCAAACCTGGGAGAAGGTGCCTA TGGGAGAAGTTCAACTTGGCTGTGAATAGAGTAAGTGAAGAAGCAGTCGCAGTGAAGATTG TAGATATGAAGCGTGCCGTAGACTGTCCAGAAAATATTAAGAAAGAGATCTGTATCAATA AAATGCTAAATCATGAAAATGTAGTAAAATTCTATGGTCACAGGAGAGAAGGCAATATCC AATATTTATTTCTGGAGTACTGTAGTGGAGGAGAGCTTTTTGACAGAATAGAGCCAGACA TAGGCATGCCTGAACCAGATGCTCAGAGATTCTCCATCAACTCATGGCAGGGGTGGTTT ATCTGCATGGTATTGGAATAACTCACAGGGATATTAACCAGAAAATCTTCTGTTGGATG AAAGGGATAACCTCAAAATCTCAGACTTTGGCTTGGCAACAGTATTTCCGTATAATAATC GTGAGCGTTTGTGAACAAGATGTGTGGTACTTTACCATATGTTGCTCCAGAACTTCTGA AGAGAAGAGAATTTTCATGCAGAACCAGTTGATGTTTGGTCTGTGGAATAGTACTACTG CAATGCTCGTGGAGAATTGCCATGGGACCAACCCAGTACAGCTGTCAGGAGTATTCTG ACTGGAAGAAAAAACAATACCTCAACCCTTGAAAAACAATCGATTCTGCTCCTCTAG CTCTGCTGCATAAAAATCTAGTTGAGAATCCATCAGCAAGGATTACCATTCCAGACATCA AAAAAGATAGATGGGACAACAAAACCCCTCAAGAAAAGGGCCAAAAGGCCCCGAGTCAC TTCAAGTG
<b>Restriction Sites:</b>	NotI-NotI
<b>ACCN:</b>	NM_001274
<b>Insert Size:</b>	3400 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<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>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>	<a href="#">NM_001274.2</a> , <a href="#">NP_001265.1</a>
<b>RefSeq Size:</b>	2042 bp
<b>RefSeq ORF:</b>	1431 bp
<b>Locus ID:</b>	1111
<b>UniProt ID:</b>	<a href="#">O14757</a>
<b>Cytogenetics:</b>	11q24.2
<b>Domains:</b>	ppk, TyrKc, S_TKc
<b>Protein Families:</b>	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]