

## Product datasheet for **MG223242**

### Clk2 (NM\_007712) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Clk2 (NM_007712) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Clk2
Synonyms:	AU041688
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG223242 representing NM\_007712  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCCCATCCCCGAAGGTACCATTCTCAGAGCGAGGTAGCCGGGGAGTTACCACGAACACTATCGGA  
 GCCGAAAGCATAAGCGAAGAAGAAGTCGCTCCTGGTCAAGTAGCAGTGACCCGACAAAGCCGGCGGGAG  
 GGAGGACAGCTACCACGTTCCGGTCCCGAAGCTATGATGACCATTCTCCGATCGGCGGCTGTACGATCGG  
 CGGTACTGTGGCAGCTACAGGCGCAATGACTACAGCCGGGACAGAGGGGAGGCTTACTACGACACAGACT  
 TTCGGCAGTCTTGAATACCATCGAGAGAAGCAGCAGTTACCGAAGCCAGCGCAGCAGCCGAAGGAAACA  
 CAGAAGGCGGAGGAGACGGAGCCGGACATTAGCCGCTCATCTTACACAGCAGCCGGAGAGCCAAGAGT  
 GTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGACTGGCTACAAGAGCGATATGAAATTG  
 TAAGCACCTTAGGAGAAGGGACCTTCGGCCGAGTTGTGCAGTGTGTGGACCATCGCAGGGCGGAACACG  
 AGTTGCCCTGAAGATCATTAAAGAAATGTGAAAAGTACAAGGAAGCAGCCCGACTAGAAATCAACGTCTG  
 GAGAAAATCAATGAGAAAGATCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGGTTTGACTACC  
 ATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCTCAAAGACAACAACACTA  
 CCTGCCCTACCCCATCCCAAGTGCGCCACATGGCCTTCCAGCTCTGCCAGGCCGTCAAGTTCTCCAT  
 GATAACAAGTTGACACATACGGACCTCAAACCTGAAAAATTTCTGTTTGTGAATTCAGACTACGAACTCA  
 CCTACAACCTAGAGAAGAAGCGAGATGAGCGCAGTGTAAAGAGCACAGCCGTGCGGGTGGTGACTTCGG  
 CAGTGCCACCTTTGACCATGAACACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCCCCGAGGTC  
 ATCCTGGAGTTGGGCTGGTCACAGCCATGCGATGTATGGAGCATAGGCTGCATCATCTTTGAGTACTAGC  
 TTGGCTTACCCTTCCAGACCATGACAACAGAGAGCATCTAGCCATGATGGAAGGATCCTGGGTC  
 TGTCCTTCTCGGATGATCAGAAAGACAAGAAAACAGAAATATTTTTATCGGGGTCGCTGGATTGGGAT  
 GAGAACACCTCAGCCGGGCGCTACGTTCTGTGAGAACTGCAAACCTCTGCGGCGGTATCTGACCTCAGAGG  
 CAGAGGACCACCACGCTCTTCGATCTGATTGAAAATATGCTAGAGTATGAGCCTGCTAAGCGGCTGAC  
 CTTAGGTGAAGCCCTTACGATCCTTTCTTCGCTGCCTTCGGACTGAGCCACCAACCAAGTTGTGG  
 GACTCCAGTCGGGATATCAGTCGG

**ACGCGTACGCGGCCGCTCGAG** - GFP Tag - GTTTAA

**Protein Sequence:**

>MG223242 representing NM\_007712  
 Red=Cloning site Green=Tags(s)

MPHPRRYHSSERGRSGSYHEHYRSRKHKRRRSRSWSSSSDRTRRRRREDSYHVRSRSYDDHSSDRRLYDR  
 RYCGSYRRNDYSRDRGEAYYDTRFRQSYEYHRENSYSRSQRSSRRKHRRRRRRSRTRFSRSSHSSRRRAKS  
 VEDDAEGHLIYHVGDWLQERYEIVSTLGEFTFGRVVQCVDHRRGGTRVALKIIKNVEKYKEARLEINVL  
 EKINEKDPDNKNCVQMFDFDYHGMCSFELLGLSTFDLKDNNYLPYPIHQVRHMAFQLCQAVKFLH  
 DNKLTHDLKPENILFVNSDYELTYNLEKRDERSVKSTAVRVVDFGSATFDHEHHSTIVSTRHYRAPEV  
 ILELGWSQPCDVWSIGCIIFEYVYVFTLFQTHDNREHLAMMERILGPVPSRMIRKTRKQKYFYRGRLDWD  
 ENTSAGRYVRENCKPLRRYL TSEAEDHHQLFDLIENMLEYEPKRLTLGEALQHPFFACLRTPEPNTKLW  
 DSSRDISR

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_007712

**ORF Size:** 1497 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\\_007712.3](#), [NP\\_031738.2](#)

**RefSeq Size:** 2310 bp

**RefSeq ORF:** 1500 bp

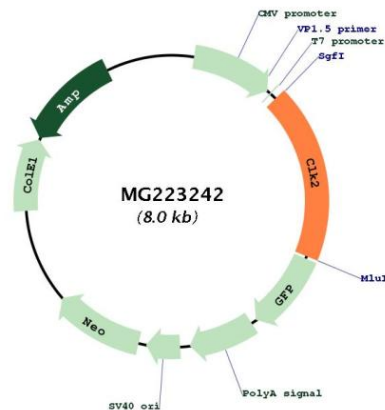
**Locus ID:** 12748

**UniProt ID:** [O35491](#)

**Cytogenetics:** 3 F1

**Gene Summary:**

Dual specificity kinase acting on both serine/threonine and tyrosine-containing substrates. Phosphorylates serine- and arginine-rich (SR) proteins of the spliceosomal complex. May be a constituent of a network of regulatory mechanisms that enable SR proteins to control RNA splicing and can cause redistribution of SR proteins from speckles to a diffuse nucleoplasmic distribution. Acts as a suppressor of hepatic gluconeogenesis and glucose output by repressing PPARGC1A transcriptional activity on gluconeogenic genes via its phosphorylation. Phosphorylates PPP2R5B thereby stimulating the assembly of PP2A phosphatase with the PPP2R5B-AKT1 complex leading to dephosphorylation of AKT1. Phosphorylates: PTPN1, SRSF1 and SRSF3. Regulates the alternative splicing of tissue factor (F3) pre-mRNA in endothelial cells.[UniProtKB/Swiss-Prot Function]

**Product images:**

Circular map for MG223242