

Product datasheet for **MG207997**

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:

>MG207997 representing NM_007712
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCCATCCCCGAAGGTACCATTCTCAGAGCGAGGTAGCCGGGGAGTTACCACGAACACTATCGGA
 GCCGAAAGCATAAGCGAAGAAGAAGTCGCTCCTGGTCAAGTAGCAGTGACCCGACAAAGCCGGCGGGAG
 GGAGGACAGCTACCACGTTCCGGTCCCGAAGCTATGATGACCATTCTCCGATCGGCGGCTGTACGATCGG
 CGGTACTGTGGCAGCTACAGGCGCAATGACTACAGCCGGGACAGAGGGGAGGCTTACTACGACACAGACT
 TTCGGCAGTCTTGAATACCATCGAGAGAACAGCAGTTACCGAAGCCAGCGCAGCAGCCGAAGGAAACA
 CAGAAGGCGGAGGAGACGGAGCCGGACATTAGCCGCTCATCTTACACAGCAGCCGGAGAGCCAAGAGT
 GTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGACTGGCTACAAGAGCGATGAAATTG
 TAAGCACCTTAGGAGAAGGGACCTTCGGCCGAGTTGTGCAGTGTGTGGACCATCGCAGGGCCGGAACACG
 AGTTGCCCTGAAGATCATTAAAGAAATGTGAAAAGTACAAGGAAGCAGCCGACTAGAAATCAACGTCTG
 GAGAAAATCAATGAGAAAGATCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGGTTTGACTACC
 ATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCTCAAAGACAACAACCTA
 CCTGCCCTACCCCATCCCAAGTGCGCCACATGGCCTTCCAGCTCTGCCAGGCCGTCAAGTTCTCCAT
 GATAACAAGTTGACACATACGGACCTCAAACCTGAAAAATTCTGTTTGTGAATTCAGACTACGAACTCA
 CCTACAACCTAGAGAAGAAGCGAGATGAGCGCAGTGTAAAGAGCACAGCCGTGCGGGTGGTGACTTCGG
 CAGTGCCACCTTTGACCATGAACACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCCCCGAGGTC
 ATCCTGGAGTTGGGCTGGTCACAGCCATGCGATGTATGGAGCATAGGCTGCATCATCTTTGAGTACTACG
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 TGTCCTTCTCGGATGATCAGAAAGACAAGAAAACAGAAATATTTTTATCGGGGTCGCTGGATTGGGAT
 GAGAACACCTCAGCCGGGCGCTACGTTCTGTGAGAACTGCAAACCTCTGCGGCGGTATCTGACCTCAGAGG
 CAGAGGACCACCACGCTCTTCGATCTGATTGAAAATATGCTAGAGTATGAGCCTGCTAAGCGGCTGAC
 CTTAGGTGAAGCCCTTACGATCCTTTCTTCGCTGCCTTCGGACTGAGCCACCAACCAAGTTGTGG
 GACTCCAGTCGGGATATCAGTCGG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

Protein Sequence:

>MG207997 representing NM_007712
 Red=Cloning site Green=Tags(s)

MPHPRRYHSSERGRSGSYHEHYRSRKHKRRRSRSWSSSSDRTRRRRRREDSYHVRSRSYDDHSSDRRLYDR
 RYCGSYRRNDYSRDRGEAYYDTRFRQSYEHRENSYSRSQRSSRRKHRRRRRRSRTRFSRSSHSSRRRAKS
 VEDDAEGHLIYHVGDWLQERYEIVSTLGEFTFGRVVQCVDHRRGGTRVALKIIKNVEKYKEARLEINVL
 EKINEKDPDNKNCVQMFDFDYHGMCSFELLGLSTFDLKDNNYLPYPIHQVRHMAFQLCQAVKFLH
 DNKLTHDLKPENILFVNSDYELTYNLEKRDERSVKSTAVRVVDFGSATFDHEHHSTIVSTRHYRAPEV
 ILELGWSQPCDVWSIGCIIFEYVYVFTLFQTHDNREHLAMMERILGPVPSRMIRKTRKQKYFYRGRLDWD
 ENTSAGRYVRENCKPLRRYL TSEAEDHHQLFDLIENMLEYEPKRLTLGEALQHPFFACLRTPEPNTKLW
 DSSRDISR

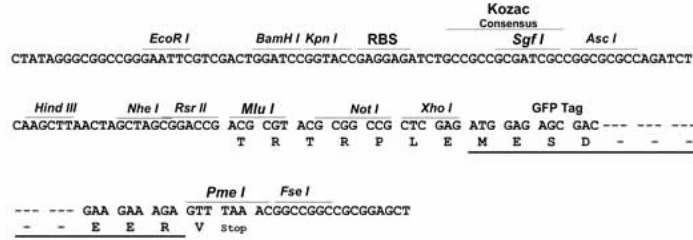
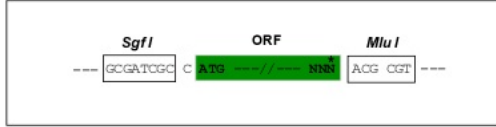
TRTRPLE - GFP Tag - V

Restriction Sites:

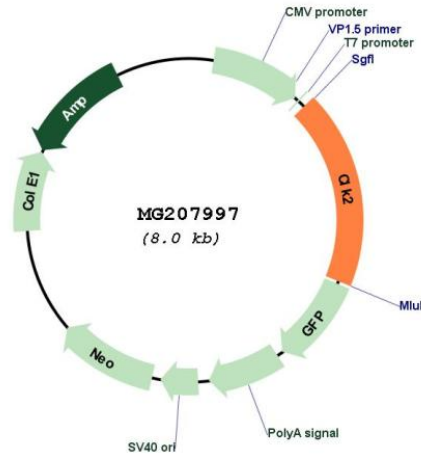
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN: NM_007712

ORF Size: 2307 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_007712.1](#)

RefSeq Size: 1538 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]