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Product datasheet for MR223242

Clk2 (NM_007712) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Clk2 (NM_007712) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Clk2
Synonyms:	AU041688
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)

ORF Nucleotide Sequence:

>MR223242 representing NM_007712
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGCCCCATCCCCGAAGGTACCATTCCTCAGAGCGAGGTAGCCGGGGGAGTTACCACGAACACTATCGGA
GCCGAAAGCATAAGCGAAGAAGAAGTCGCTCCTGGTCAAGTAGCAGTGACCGGACAAGGCGGCGGCGGAG
GGAGGACAGCTACCACGTTCGGTCCCGAAGCTATGATGACCATTCGTCCGATCGGCGGCTGTACGATCGG
CGGTACTGTGGCAGCTACAGGCGCAATGACTACAGCCGGGACAGAGGGGAGGCTTACTACGACACAGACT
TTCGGCAGTCCTATGAATACCATCGAGAGAACAGCAGTTACCGAAGCCAGCGCAGCAGCCGAAGGAAACA
CAGAAGGCGGAGGAGACGGAGCCGGACATTCAGCCGCTCATCTTCACACAGCAGCCGGAGAGCCAAGAGT
GTAGAGGACGACGCTGAGGGCCACCTCATCTACCACGTCGGGGACTGGCTACAAGAGCGATATGAAATTG
TAAGCACCTTAGGAGAAGGGACCTTCGGCCGAGTTGTGCAGTGTGTGGACCATCGCAGGGGCGGAACACG
AGTTGCCCTGAAGATCATTAAGAATGTGGAAAAGTACAAGGAAGCAGCCCGACTAGAAATCAACGTGCTG
GAGAAAATCAATGAGAAAGATCCTGACAACAAGAACCTCTGTGTCCAGATGTTTGACTGGTTTGACTACC
ATGGCCACATGTGTATCTCCTTTGAGCTTCTGGGCCTTAGCACCTTCGATTTCCTCAAAGACAACAACTA
CCTGCCCTACCCCATCCACCAAGTGCGCCACATGGCCTTCCAGCTCTGCCAGGCCGTCAAGTTCCTCCAT
GATAACAAGTTGACACATACGGACCTCAAACCTGAAAATATTCTGTTTGTGAATTCAGACTACGAACTCA
CCTACAACCTAGAGAAGAAGCGAGATGAGCGCAGTGTAAAGAGCACAGCCGTGCGGGTGGTGGACTTCGG
CAGTGCCACCTTTGACCATGAACACCATAGCACCATTGTCTCCACTCGCCATTACCGAGCCCCCGAGGTC
ATCCTGGAGTTGGGCTGGTCACAGCCATGCGATGTATGGAGCATAGGCTGCATCATCTTTGAGTACTACG
TTGGCTTCACCCTCTTCCAGACCCATGACAACAGAGAGCATCTAGCCATGATGGAAAGGATCCTGGGTCC
TGTCCCTTCTCGGATGATCAGAAAGACAAGAAAACAGAAATATTTTTATCGGGGTCGCCTGGATTGGGAT
GAGAACACCTCAGCCGGGCGCTACGTTCGTGAGAACTGCAAACCTCTGCGGCGGTATCTGACCTCAGAGG
CAGAGGACCACCACCAGCTCTTCGATCTGATTGAAAATATGCTAGAGTATGAGCCTGCTAAGCGGCTGAC
CTTAGGTGAAGCCCTTCAGCATCCTTTCTTCGCCTGCCTTCGGACTGAGCCACCCAACACCAAGTTGTGG
GACTCCAGTCGGGATATCAGTCGG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

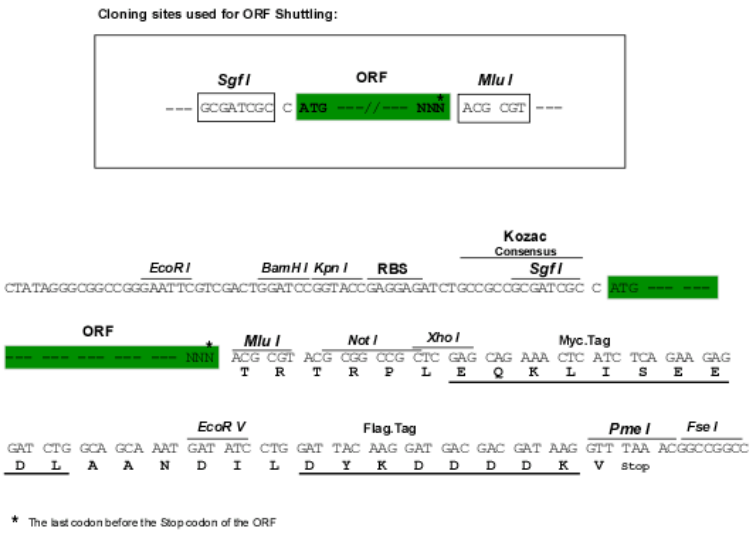
>MR223242 representing NM_007712
Red=Cloning site Green=Tags(s)

MPHPRRYHSSERGSRGSYHEHYRSRKHKRRRSRSWSSSSDRTRRRRREDSYHVRSRSYDDHSSDRRLYDR
RYCGSYRRNDYSRDRGEAYYDTDFRQSYEYHRENSSYRSQRSSRRKHRRRRRRSRTFSRSSSHSSRRAKS
VEDDAEGHLIYHVGDWLQERYEIVSTLGEGTFGRVVQCVDHRRGGTRVALKIIKNVEKYKEAARLEINVL
EKINEKDPDNKNLCVQMFDWFDYHGHMCISFELLGLSTFDFLKDNNYLPYPIHQVRHMAFQLCQAVKFLH
DNKLTHTDLKPENILFVNSDYELTYNLEKKRDERSVKSTAVRVVDFGSATFDHEHHSTIVSTRHYRAPEV
ILELGWSQPCDVWSIGCIIFEYYVGFTLFQTHDNREHLAMMERILGPVPSRMIRKTRKQKYFYRGRLDWD
ENTSAGRYVRENCKPLRRYLTSEAEDHHQLFDLIENMLEYEPAKRLTLGEALQHPFFACLRTEPPNTKLW
DSSRDISR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_007712

ORF Size: 1494 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, NM_007712.2, NM_007712.3, NM_007712.4, NP_031738.2

RefSeq Size: 2310 bp

RefSeq ORF: 1500 bp

Locus ID: 12748

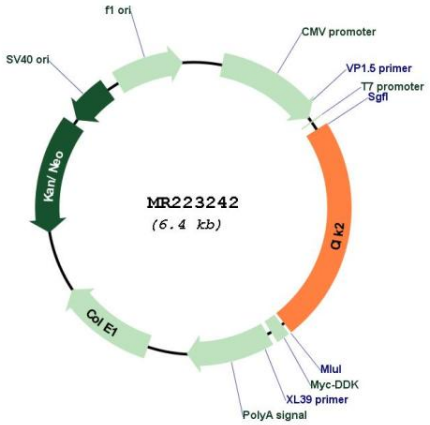
UniProt ID: O35491

Cytogenetics: 3 F1

MW: 60.4 kDa

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 MR223242