

Product datasheet for **RR214434**

Cry1 (NM_198750) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cry1 (NM_198750) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cry1
Synonyms:	MGC124541
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RR214434 representing NM_198750
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGGTGAACGCCGTGCATTGGTTCCGAAAGGGACTCCGGCTGCACGACAACCCGCCCTGAAGGAGT
 GCATCCAGGGCGCGACACCATCCGCTGCGTGTACATCCTCGACCCTGGTTCGCCGGCTCTTCCAACGT
 GGGCATCAACAGGTGGCGATTTTGTCTCAGTGTCTTGAGGACCTTGATGCCAATCTACGAAAGTTAAAT
 TCTCGCTGTTTGTGATCCGGGGACAGCCAGCTGACGTGTTCCGAGGCTTTTCAAGGAATGGAATATTA
 CTAACATTTCAATTGAGTACGATTCTGAGCCTTTTGGGAAGAACGAGATGCGGCCATCAAGAAGCTGGC
 CACTGAGGCTGGTGTGGAAGTATCGTGCATTTACACACACTGTATGACCTAGACAAGATCATAGAA
 CTAATGGTGGCAGCCACCCCTAACATACAAAAGTTTTCAGACTCTCGTCAGCAAATGGAGCCCTGG
 AGATGCCAGCAGACACCATCACATCAGACGTGATAGGGAAGTGCACAACCCCTCTGTCCGACGACCATGA
 TGAGAAGTACGGAGTTCCTTCCCTGGAGGAGCTCGGTTTTGATACCGATGGCTTGCCTCTCGGGTGTGG
 CCAGGAGGAGAACTGAGGCACTTACACGTTTGGAAAGGCATTTGGAAAGAAAGGCTGGGTGGCAAAT
 TTGAAAGACCTCGAATGAATGCAAACCTCCCTGCTCGCAAGCCCAACTGGACTGAGTCCTTATCTCCGCTT
 CGGTTGTTTGTATGTCGGCTATTTTATTTCAAACCTAACAGATCTCTACAAAAGGTAAGAAAAATAGT
 TCCCTCCCTTTCTCTTATAGGCAACTCCTGTGGCGTGAATTTTTTATACAGCAGCCACAAACAACC
 CACGCTTTGACAAAATGGAAGGGAACCCCATCTGTGTTCAAATCCCTGGGACAAGAATCCCGAGGCTCT
 GGCCAAATGGGCAGAAGGCCGACAGGCTTTCCGTGGATTGACGCCATCATGACACAGCTTCGTGAGGAG
 GGCTGGATCCACCATCTAGCCGACATGCAGTTGCCTGTTTCTGACCCGCGGACCTATGGATCAGTT
 GGAAGAAGGGATGAAGGTCTTTGAAGAATTACTGCTTACCGGACTGGAGCATCAATGCTGGGATTTG
 GATGTGGCTGTCCTGCAGTTCCTTTTCCAACAGTTTTTCCAAGTCTACTGCCCTGTTGGTTTTGGTAGG
 AGGACAGACCCCAATGGAGACTATATTAGCGTATTGCTGCTTAAGAGGCTTCCCTGCAAAATATA
 TCTACGATCCTTGAATGCACAGAAAGGTATCCAGAAGGTAGCCAAATGTTTGTAGGCGTTAATTATCC
 CAAACCAATGGTGAACCATGCCGAGGCAAGTCGACTGAATATTGAAAGAATGAAGCAGATCTATCAGCAG
 CTCTCCCGCTACAGAGGGCTAGGCTCCTTGCCTCAGTCCCTTCTAATCCTAATGGGAACGGAGGGCTCA
 TGGGCTATGCTCCTGGAGAGAATGTCCCAGCGGTGGCAGTGGTGGCGAAACTGCTCTCAAGGAAGTGG
 TATTTTACACTATGCTCACGGAGACAGTCAGCAAATAACCCACTAAAGCAAGGAAGAAGCTCCATGGGC
 ACTGGCCTCAGCAGCGGGAAGCGCCAAGTCAGGAAGAGGACGCACAGAGTGTGGCCCCAAGTCCAGC
 GACAGAGCAGTAAC

ACGCGTACGCGGCGGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR214434 representing NM_198750
 Red=Cloning site Green=Tags(s)

MGVNAVHWFRKGLRLHDNPALKECIQGADTIRCIVYILD PWFAGSSNVGINRWRFLQCLELDANLRKLN
 SRLFVIRGQPADVFPRLFKEWNIKLSIEYDSEPFGKERDAAIKKLATEAGVEVIVRISHTLYDLDKIIE
 LGGQPPLYKRFQTLVSKMEPLEMPADTITSDVIGKCTTPLSDDHDEKYGVPSLEELGFDTDGLSSAVW
 PGGETEALTRLERHLERKAWVANFERPRMNANLLASPTGLSPYLRFGLSCRLFYFKLTDLYKKVKKNS
 SPPLSLYGQLLWREFFYTAATNNPRFDKMEGNPICVQIPWDKNPEALAKWAEGRGFPWIDAIMTQLRQE
 GWIHHLARHAVACFLTRGDLSWEEGMKVFEEILLDADWSINAGSMMWLSGSSFFQFFHCYCPVGFGR
 RTDPNGDYIRRYLPVLRGFPKAYIYDPWNAPEGIQKVAKCLIGVNYPKPMVNHAEASRLNIERMKQIYQQ
 LSRYRGLGLLASVPSNPNNGGLMGYAPGENVPSGGSGGNCSSQSGILHYAHGDSQQTNPLKQGRSSMG
 TGLSSGKRPSQEEDAQSVGPKVQRQSSN

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

Cloning Scheme:


ACCN: NM_198750

ORF Size: 1764 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_198750.2](#), [NP_942045.2](#)

RefSeq Size: 2938 bp

RefSeq ORF: 1767 bp

Locus ID: 299691

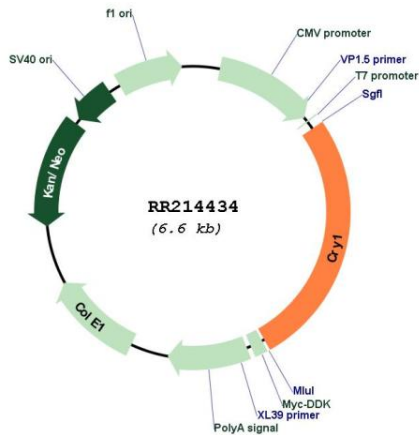
UniProt ID: [Q32Q86](#)

Cytogenetics: 7q13

MW: 66.2 kDa

Gene Summary: This gene encodes a flavin adenine dinucleotide-binding protein that is a key component of the circadian core oscillator complex, which regulates the circadian clock. This gene is upregulated by Clock/Arntl heterodimers but then represses this upregulation in a feedback loop using Per/Cry heterodimers to interact with Clock/Arntl. Polymorphisms in this gene have been associated with altered sleep patterns. The encoded protein is widely conserved across plants and animals. Loss of the related gene in mouse results in a shortened circadian cycle in complete darkness. [provided by RefSeq, Feb 2014]

Product images:



Circular map for RR214434