

Product datasheet for **RR210144**

Cry2 (NM_133405) Rat Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Cry2 (NM_133405) Rat Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Cry2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide Sequence:

>RR210144 representing NM_133405
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGCGGGCTGCTGTGGTGGCAGCGACGGTCCCCGCGCAGTCGATGGGCGCGGACGGCGCGTCTCCG
 TGCACTGGTTCGCAAAGGACTACGGCTCCACGACAACCCGCGCTGTTAGCTGCCGTGCGCGGGCGCG
 CTGTGTGCGCTGCGTCTACATCCTCGACCCGTGGTTCGCGGCTCCTCGTCAGTGGGCATCAACCGATGG
 AGGTTCTACTGCAGTCTCTAGAAGATCTGGACACAAGCTTAAGAAAGCTGAATCCCGTCTGTTGTAG
 TCCGGGTGAGCCAGCTGATGTGTTCCCAAGGCTTTTCAAGGAATGGGGGTGACCCGCTTGACCTTTGA
 ATATGACTCCGAACCTTTGGGAAAGAACGGGATGCAGCCATTATGAAGATGGCCAAGGAGGCGGGTGTG
 GAGGTGGTACTGAGAACTCTCACACCTTTATGACTTAGACAGAATCATCGAAGTGAATGGGCAGAAAC
 CACCCCTTACCTACAAGCGCTTTCAGGCTCTCATCAGCCGATGGAGCTGCCAAGAAGCCAGTGGGGC
 TGTGAGCAGCCAGCATATGGAGAAGTGCAGAGCTGAGATCCAGGAGAACCATGATGACACCTATGGCGTG
 CCTTCCTTAGAGGAACTGGGATTCACACAGAAGGACTTGGCCAGCTGTTTGGCAAGGAGGAGAGACAG
 AAGCTCTGGCCCGCTGGATAAGCACTTGAACCGAAGGCTGGGTTGCCAACTATGAGAGACCTCGGAT
 GAATGCCAATTCCTTGTGGCCAGCCCCACAGGCTCAGCCCTACCTGCGCTTTGGCTGCCTCTCTCTGC
 CGCCTCTTCTACTACCGCTGTGGGACTTGTACAGAAAGTGAAGAGGAACAGCACACCCCCCTCTCTCT
 TATTTGGACAACCTCTATGGCGAGAATCTTCTATACAGCGGCCACCAACAACCCAGGTTTGACCGAAT
 GGAGGGAAACCCATCTGCATCCAGATCCCCTGGGACCGCAACCCGAAGCCCTGGCCAAGTGGGCGGAG
 GGCAAGACAGGCTTCCCTTGATTGACGCCATCATGACCAACTGAGGCAGGAGGGTGGATCCACCACC
 TGGCCCGGCACGCTGTGGCTGCTTCTCACCCGAGGGACCTCTGGGTGAGTGGGAGAGCGGGTCCG
 GGTATTTGATGAGTTGCTCCTGGATGCAGATTTACAGCTGAATGCAGGCAGCTGGATGTGGCTGTCTGC
 AGTGCTTTCTTCCAACAGTTCTTCCACTGCTACTGCCCTGTGGGCTTTGGCCGACGCACGGACCCAGTG
 GGGACTACATCCGGCGATACCTGCCAACTGAAAGGCTTCCCCTCTCGATATATCTATGAGCCCTGGAA
 TGCTCCCGAGTCGGTTCAGAAGGCCGCTAAGTGCATCATTGGCGTGGACTACCCACGGCCCATCGTCAAC
 CACGCAGAGACTAGTCGGCTCAACATTGAGCGGATGAAGCAGATCTACCAACAGCTGTCACGATACCGGG
 GGCTCTGTCTGTTGGCATCTGTCCCTTCTGTGTAGAAGACCTCAGTACCCTGTGGCAGAGCCTGGTTC
 TAGCCAGGCTGGGAGCATCAGCAACACAGGCCCCAGACCCTGTCCAGTGGCCAGCCTCCCCAAACGC
 AAGCTGGAAGCAGCTGAGGAACCTCCAGGTGAAGAAGTGAAGAAGCGGGCTAGAGTGACAGTGACTCAGA
 TGCTGCCAGGAGCCACCAAGCAAGGACTCC

ACGCGTACGCGGGCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RR210144 representing NM_133405
 Red=Cloning site Green=Tags(s)

MAAAVVAATVPAQSMGADGASSVHWRKGLRLHDPALLAAVRGARCVRVYIILDPWFAASSSVGINRW
 RFLQLSLEDLDTSLRKLNSRLFVVRGQPADVFPRLFKEWGVTRLTFEYDSEPFGKERDAAIMKMAKEAGV
 EVVTENSHLYLDRIIELNGQKPLTYKRFQALISRMELPKKPVGAVSSQHMENCRAEIQENHDDTYGV
 PSLEELGFPEGLGPAVWQGETEALARLDKHLERKAWVANYERPRMNANSLLASPTGLSPYLRFGCLSC
 RLFYYRLWDLYRKVKRNSTPPLSLFGQLLWREFFYTAATNNPRFDRMEGNPICIQIPWDRNPEALAKWAE
 GKTGFPPWIDAIMTQLRQEGWIHLARHAYACFLTRGDLWVSWESGVRVFDLLEDADFSVNAGSWMWLS
 SAFFQQFFHCYCPVGFGRRTDPSGDYIRRYLPKLGKGFPSRYIYEPWNAPEVQKAAKCIIGVDYPRPIVN
 HAETSRLNIERMKIYQQLSRYRGLCLLASVPSCVEDLSHPVAEPGSSQAGSISNTGPRPLSSGPASP
 PKR
 KLEAAEPPGEELSKRARVTVTQMPAQEPPSKDS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites:

Sgfl-MluI

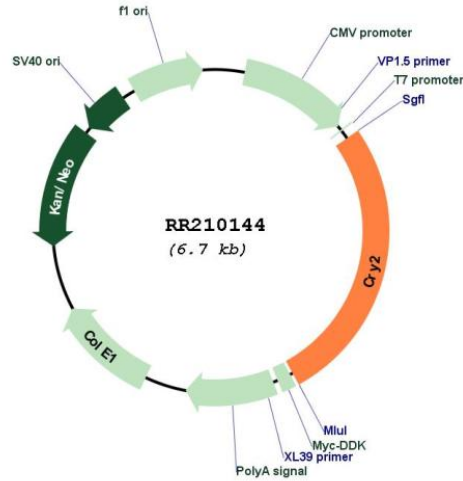
Cloning Scheme:

Cloning sites used for ORF Shutting:



* The last codon before the Stop codon of the ORF

Plasmid Map:



ACCN:

NM_133405

ORF Size:	1782 bp
OTI Disclaimer:	<p>Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p>
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:	<ol style="list-style-type: none">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_133405.2 , NP_596896.2
RefSeq Size:	3988 bp
RefSeq ORF:	1785 bp
Locus ID:	170917
Cytogenetics:	3q24
MW:	67.1 kDa
Gene Summary:	<p>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. [provided by RefSeq, Feb 2014]</p>