

## Product datasheet for **RN210144**

### **Cry2 (NM\_133405) Rat Untagged Clone**

#### **Product data:**

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



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**Fully Sequenced ORF:** >RN210144 representing NM\_133405  
 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCGGGCTGCTGTGGTGGCAGCGACGGTCCCGTGCAGTCGATGGCGCGGACGGCGCGTCTCCG  
 TGCACTGGTTCGCAAAAGGACTACGGCTCCACGACAACCCGCGCTGTTAGCTGCCGTGCGCGGGCGCG  
 CTGTGTGCGCTGCGTCTACATCCTCGACCCGTGGTTCGCGGCCCTCCTCGTCAGTGGGCATCAACCGATGG  
 AGGTTCTACTGCAGTCTCTAGAAGATCTGGACACAAGCTTAAGAAAGCTGAATCCCGTCTGTTTGTAG  
 TCCGGGGTTCAGCCAGCTGATGTGTTCCCAAGGCTTTTCAAGGAATGGGGGTGACCCGCTTGACCTTTGA  
 ATATGACTCCGAACCTTTGGGAAAGAACGGGATGCAGCCATTATGAAGATGGCCAAGGAGGCGGGTGTG  
 GAGGTGGTACTGAGAATCTCACACCTTTATGACTTAGACAGAATCATCGAATGAATGGGCAGAAAC  
 CACCCCTTACCTACAAGCGCTTTCAGGCTCTCATCAGCCGATGGAGCTGCCAAGAAGCCAGTGGGGC  
 TGTGAGCAGCCAGCATATGGAGAATGCAGAGCTGAGATCCAGGAGAACCATGATGACACCTATGGCGTG  
 CCTTCCTTAGAGGAACTGGGATTCACACAGAAGGACTTGGCCAGCTGTTTGGCAAGGAGGAGAGACAG  
 AAGCTCTGGTCCGCTGGATAAGCACTTGAACCGAAGGCTGGGTTGCCAACTATGAGAGACCTCGGAT  
 GAATGCCAATTCCTTGTGGCCAGCCCCACAGGCTCAGCCCTACCTGCGCTTTGGCTGCCTCTCTCTGC  
 CGCCTCTTCTACTACCGCTGTGGGACTTGTACAGAAAGTGAAGAGGAACAGCACACCCCCCTCTCTCT  
 TATTTGGACAACCTCTATGGCGAGAATCTTCTATACAGCGGCCACCAACAACCCAGGTTTGACCGAAT  
 GGAGGGGAACCCATCTGCATCCAGATCCCCTGGGACCGAAACCCGAAGCCCTGGCCAAGTGGGCCGAG  
 GGCAAGACAGGCTTCCCTGGATTGACGCCATCATGACCAACTGAGGCAGGAGGGCTGGATCCACCACC  
 TGGCCCGGACGCTGTGGCCTGCTTCTCACCCGAGGGGACCTCTGGGTCAGCTGGGAGAGCGGGTCCG  
 GGATTTGATGAGTTGCTCCTGGATGCAGATTTACAGCTGAATGCAGGCAGCTGGATGTGGCTGTCTGTC  
 AGTGCTTTCTTCCAACAGTTCTTCCACTGCTACTGCCCTGTGGGCTTTGGCCGACGCACGGACCCAGTG  
 GGGACTACATCCGGGATACCTGCCAAACTGAAAGGCTTCCCCTCTCGATATATCTATGAGCCCTGGAA  
 TGCTCCCGAGTCGGTTCAGAAGGCCGTAATTGCATCATTGGCGTGGACTACCCACGGCCCATCGTTAAC  
 CACGCAGAGACTAGTCGGCTCAACATTGAGCGGATGAAGCAGATCTACCAACAGCTGTCACGATACCGGG  
 GGCTCTGTCTGTGGCATCTGTCCCTTCTGTGTAGAAGACCTCAGTACCCTGTGGCAGAGCCTGGTTC  
 TAGCCAGGCTGGGAGCATCAGCAACACAGGCCCCAGACCTGTCCAGTGGCCAGCCTCCCCAAACGC  
 AAGCTGGAAGCAGCTGAGGAACCTCCAGGTGAAGAACTGAGCAAGCGGGCTAGAGTGACAGTGACTCAGA  
 TGCTGCCAGGAGCCACCAAGCAAGGACTCCTGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Chromatograms:** [https://cdn.origene.com/chromatograms/ja3347\\_a05.zip](https://cdn.origene.com/chromatograms/ja3347_a05.zip)

**Restriction Sites:** Sgfl-Mlul

**ACCN:** NM\_133405

**Insert Size:** 1785 bp

**OTI Disclaimer:** 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](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**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\\_133405.1](#), [NP\\_596896.1](#)

**RefSeq Size:** 3988 bp

**RefSeq ORF:** 1785 bp

**Locus ID:** 170917

**Cytogenetics:** 3q24

**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. [provided by RefSeq, Feb 2014]