

## Product datasheet for **RG207337**

### **CRY2 (NM\_021117) Human Tagged ORF Clone**

#### **Product data:**

Product Type:	Expression Plasmids
Product Name:	CRY2 (NM_021117) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CRY2
Synonyms:	HCRY2; PHLL2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG207337 representing NM\_021117  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGCGACTGTGGCGACGGCGCAGCTGTGGCCCCGGCGCCAGCGCCCGGCACGGACAGCGCCTCTT  
 CGGTGCACTGGTCCGCAAAGGGCTGCGACTCCACGACAACCCGGCGTTGCTGGCGGCCGTGCGCGGGC  
 GCGCTGCGTGCCTGCGTTTACATTCTCGACCCGTGGTTCGCGGCCTCCTCCTCAGTCGGGATCAACCGA  
 TGGAGGTTCTACTTCACTCTCTGGAAGATTTGGACACAAGTTTAAGGAACTGAACTCCCGCCTGTTTG  
 TAGTCCGGGGACAGCCAGCCGACGTGTTCCCAAGGCTGTTCAAGGAATGGGGAGTGACCCGCTTGACCTT  
 TGAATATGACTCTGAACCCCTTGGGAAAGAACGGGATGCAGCCATCATGAAGATGGCCAAGGAGGCTGGT  
 GTGGAAGTAGTGACGGAGAATTCTCATACCCTCTATGACCTGGACAGGATCATTGAGCTGAATGGGCAGA  
 AGCCACCCCTTACATAACAAGCGCTTTCAGGCCATCATCAGCCGCATGGAGCTGCCAAGAAGCCAGTGGG  
 CTTGGTGACCAGCCAGCAGATGGAGAGCTGCAGGGCCGAGATCCAGGAGAACCACGACGAGACCTACGGC  
 GTGCCCTCCCTGGAGGAGCTGGGGTTCCTCACTGAAGGACTTGGTCCAGCTGTCTGGCAGGGAGGAGAGA  
 CAGAAGCTCTGGCCCGCCTGGATAAGCACTTGGAACGGAAGGCCTGGGTTGCCAACTATGAGAGACCCCG  
 AATGAACGCCAACTCCCTCCTGGCCAGCCCCACAGGCCTCAGCCCTACCTGCGCTTTGGTTGTCTCTCC  
 TGCCGCTCTTCTACTACCGCTGTGGGACCTGTATAAAAAGGTGAAGCGGAACAGCACACCTCCCTCT  
 CCCTATTTGGGCAACTCTATGGCGAGAGTTCTTCTACACGGCAGCTACCAACAACCCAGGTTTGACCG  
 CATGGAGGGGAACCCATCTGCATCCAGATCCCCTGGGACCGCAATCCTGAGGCCTGGCCAAGTGGGCT  
 GAGGGCAAGACAGGCTTCCCTTGGATTGATGCCATCATGACCCAAGTGGGAGGAGGCTGGATCCACC  
 ACCTGGCCCGGCATGCCGTGCCCTGCTTCTGACCCGCGGGACCTCTGGGTCACTGGGAGAGCGGGGT  
 CCGGGTATTTGATGAGCTGCTCCTGGATGCAGATTTTCAGCGTGAACGCAGGCAGCTGGATGTGGCTGTCC  
 TGCACTGCTTTCTCCAGCAGTTCTTCCACTGCTACTGCCCTGTGGGCTTTGGCCGTCGACGGACCCCA  
 GTGGGACTACATCAGGCATACCTGCCAAATTGAAAGCGTTCCCTCTCGATACATCTATGAGCCCTG  
 GAATGCCCCAGAGTCAATTCAGAAGGCAGCCAAGTGCATCATTGGTGTGGACTACCCACGGCCCATCGTC  
 AACCATGCCGAGACCAGCCGGCTTAACATTGAACGAATGAAGCAGATTTACCAGCAGCTTTCGCGCTACC  
 GGGGACTCTGTCTACTGGCATCTGTCCCTTCTGTGTGGAAGACCTCAGTACCCTGTGGCAGAGCCAG  
 CTCGAGCCAGGCTGGCAGCATGAGCAGTGCAGGCCAAGACCACTACCCAGTGGCCAGCATCCCCAAA  
 CGCAAGCTGGAAGCAGCCGAGGAACCACTGGTGAAGAACTCAGCAAACGGGCCCGGTGGCAGAGTTGC  
 CAACCCAGAGCTGCCGCAAGGATGCC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>RG207337 representing NM\_021117  
 Red=Cloning site Green=Tags(s)

MAATVATAAAVAPAPAPGTDSASSVHFRKGLRLHDPALLAAVARGARCVRCVYILDWFAASSVGINR  
 WRFLQLSLEDLDTSLRKLNSRLFVVRGQPADVFPRLFKEWGVTRLTFEYDSEPFKGERDAAIMKMAKEAG  
 VEVVTENSHTLYDLDRILELNGQKPLTYKRFQAIISRMELPKKPVGLVTSQQMESCRAEIQENHDETYG  
 VPSLEELGFPTEGLGPAVWQGGTEALARLDKHLERKAWVANYERPRMNANSLASPTGLSPYLRFGCLS  
 CRLFYYRLWDLYKVKRNSTPPLSLFGQLLWREFFYTAATNPRFDRMEGNPICIQIPWDRNPEALAKWA  
 EGKTGFPWIDAIMTQLRQEGWIHHLARHAVACFLTRGDLWVSWESGVRVFDLLELDADFVNAGSWMWLS  
 CSAFFQFFHCYCPVGFGRRTDPSGDYIRRYLPKLFKAFPSRYIYEPWNAPESIQKAAKCIIGVDYPRPIV  
 NHAETSRNLNIERMKQIYQQLSRYRGLCLLASVPSCVEDLSHPVAEPSSSQAGSMSSAGPRPLPSGPASPK  
 RKLEAAEPPGEELSKRARVAELPTPELPSKDA

**TRTRPLE** - GFP Tag - V

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


- ACCN:** NM\_021117
- ORF Size:** 1779 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.
- Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
- RefSeq:** [NM\\_021117.5](#)
- RefSeq Size:** 4146 bp
- RefSeq ORF:** 1782 bp
- Locus ID:** 1408

UniProt ID: [Q49AN0](#)

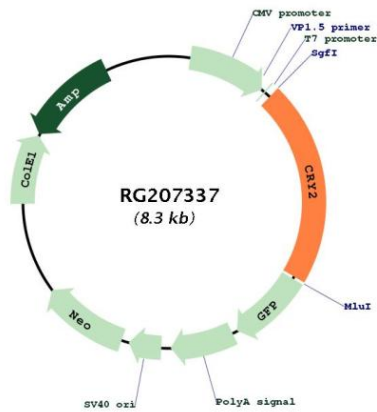
Cytogenetics: 11p11.2

Protein Families: Druggable Genome

Protein Pathways: Circadian rhythm - mammal

**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. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Feb 2014]

**Product images:**



Circular map for RG207337