

Product datasheet for **RG225913**

CRY2 (NM_001127457) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CRY2 (NM_001127457) 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:

>RG225913 representing NM_001127457
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGCCAGCTCCACCCGGGCGGACCCACACATGGTTCTACTTTCAGTCTCTGGAAGATTTGGACACAAGTT
 TAAGGAAACTGAACTCCCGCCTGTTTGTAGTCCGGGGACAGCCAGCCAGGTGTTCCCAAGGCTGTTCAA
 GGAATGGGGAGTGACCCGCTTGACCTTTGAATATGACTCTGAACCCCTTTGGGAAAGAACGGGATGCAGCC
 ATCATGAAGATGGCCAAGGAGGCTGGTGTGGAAGTAGTGACGGAGAATTCTCATACCCTCTATGACCTGG
 ACAGGATCATTGAGCTGAATGGGAGAAGCCACCCCTTACATAACAAGCGCTTTCAGGCCATCATCAGCCG
 CATGGAGCTGCCAAGAAGCCAGTGGGCTTGGTGACCAGCCAGCAGATGGAGAGCTGCAGGGCCGAGATC
 CAGGAGAACCACGACGAGACCTACGGCGTGCCCTCCCTGGAGGAGCTGGGGTTCCCCACTGAAGGACTTG
 GTCAGCTGTCTGGCAGGGAGGAGACAGAAGCTCTGGCCCGCCTGGATAAGCACTTGGAAACGGAAGGC
 CTGGGTTGCCAACTATGAGAGACCCGAATGAACGCCAACTCCCTCCTGGCCAGCCCACAGGCCTCAGC
 CCCTACCTGCGCTTTGGTTGTCTCTCTGCCGCCTCTTCTACTACCGCCTGTGGGACCTGTATAAAAAGG
 TGAAGCGGAACAGCACACCTCCCTCTCCCTATTTGGGCAACTCCTATGGCGAGAGTTTCTCTACACGGC
 AGCTACCAACAACCCAGGTTTGACCGCATGGAGGGGAACCCCATCTGCATCCAGATCCCTGGGACCCG
 AATCCTGAGGCCCTGGCCAAGTGGGCTGAGGGCAAGACAGGCTTCCCTTGGATTGATGCCATCATGACCC
 AACTGAGGCAGGAGGGCTGGATCCACCACCTGGCCCGCATGCCGTGGCTGCTTCTGACCCGCGGGGA
 CCTCTGGGTCAGCTGGGAGAGCGGGTCCGGTATTTGATGAGCTGCTCCTGGATGCAGATTTACAGCTG
 AACGCAGGCAGCTGGATGTGGCTGTCTGCAGTGCTTCTTCCAGCAGTCTTCCACTGCTACTGCCCTG
 TGGCTTTGGCCGTCGCACGGACCCAGTGGGGACTACATCAGGGGATACCTGCCAAATGAAAGCGTT
 CCCTCTCGATACATCTATGAGCCCTGGAATGCCCCAGAGTCAATTCAGAAGGCAGCCAAGTGATCATT
 GGTGTGGACTACCCACGGCCATCGTCAACCATGCCGAGACCAGCCGGTTAACATTGAACGAATGAAGC
 AGATTTACCAGCAGCTTTCGCGTACCAGGGACTCTGTCTACTGGCATCTGTCCCTTCTGTGTGGAAGA
 CCTCAGTACCCTGTGGCAGAGCCAGCTCGAGCCAGGCTGGCAGCATGAGCAGTGCAGGCCAAGACCA
 CTACCCAGTGGCCAGCATCCCCAAACGAAGCTGGAAGCAGCCGAGGAACCACTGGTGAAGAAGTCA
 GCAAACGGGCCCGGTGGCAGAGTTGCCAACCCAGAGCTGCCGAGCAAGGATGCC

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

Protein Sequence:

>RG225913 representing NM_001127457
 Red=Cloning site Green=Tags(s)

MPAPPGRTHTWFLQLSELDLDTSLRKLNSRLFVVRGQPADVFPRLFKEWGVTRLTFEYDSEFPFKERDAA
 IMKMAKEAGVEVVTENSHLYLDRIIELNGQKPLTYKRFQAIISRMELPKKPVLVTSQQMESCRAEI
 QENHDETYGVPSLEELGFPEGLPAVWQGGETEALARLDKHLERKAWVANYERPRMNANSLLASPTGLS
 PYLRFGLSCRLFYRLLWDLYKVKRNSTPPLSLFGQLLWREFFYTAATNNPRFDRMEGNPICIQIPWDR
 NPEALAKWAEGKTGFPWIDAIMTQLRQEGWIHHLARHAVACFLTRGDLWVSWESGVRVFDLLEDLDFSV
 NAGSMMWLSAFAFFQFFHCYCPVGFGRRTDPSGDYIRRYLPKLFKAFPSRYIYEPWNAPESIQAAKCII
 GVDYPRPIVNHAEISRNIERMKIYQQLSRYRGLCLLASVPSCVEDLSHPVAEPSSSQAGSMSSAGPRP
 LPSGPASPKRLEAAEPPGEELSKRARVAELPTPELPSKDA

TRTRPLE – GFP Tag – V

Restriction Sites:

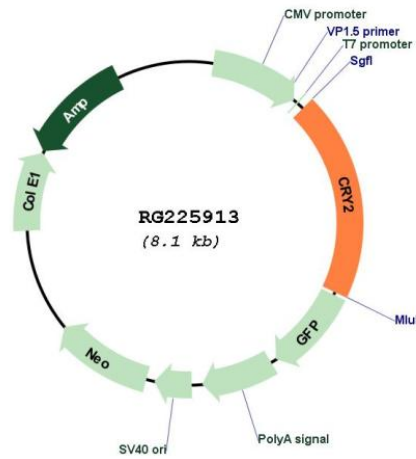
Sgfl-MluI

Cloning Scheme:

Cloning sites used for ORF Shutting:



Plasmid Map:



ACCN:	NM_001127457
ORF Size:	1596 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:	<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_001127457.2
RefSeq Size:	4082 bp
RefSeq ORF:	1599 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]