

## Product datasheet for **RG216445**

### Melatonin Receptor 1B (MTNR1B) (NM\_005959) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Melatonin Receptor 1B (MTNR1B) (NM_005959) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Melatonin Receptor 1B
Synonyms:	FGQTL2; MEL-1B-R; MT2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG216445 representing NM_005959 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGTCAGAGAACGGCTCCTTCGCCAACTGCTGCGAGGGCGGGGGTGGGCAGTGCGCCCGGGCTGGTCCG  
GGGCTGGCAGCGCGGGCCCTCCAGGACCCCTCGACCTCCCTGGGTGGCTCCAGCGCTGTCCGGGTGCT  
CATCGTCACCACCGCCGTGGACGTCGTGGGCAACCTCCTGGTGATCCTCTCCGTGCTCAGGAACCGCAAG  
CTCCGGAACGCAGGTAATTTGTTCTTGGTGAGTCTGGCATTGGCTGACCTGGTGGTGGCCTTCTACCCCT  
ACCCGCTAATCCTCGTGGCCATTTCTATGACGGCTGGGCCCTGGGGAGGAGCACTGCAAGGCCAGCGC  
CTTTGTGATGGGCTGAGCGTCATCGGCTCTGTCTTCAATATCACTGCCATCGCCATTAACCGCTACTGC  
TACATCTGCCACAGCATGGCCTACCACCGAATCTACCGGCGCTGGCACACCCCTCTGCACATCTGCCTCA  
TCTGGCTCCTCACCGTGGTGGCCTTGTGCCCCAATTCTTTGTGGGGTCCCTGGAGTACGACCCACGCAT  
CTATTCCTGCACCTTCATCCAGACCGCCAGCACCCAGTACACGGCGGCAGTGGTGGTCACTTCCCTC  
CTCCCTATCGTGTGCTGCTTCTGCTACCTGCGCATCTGGGTGCTGGTGTTCAGGCCCGCAGGAAAG  
CCAAGCCAGAGAGCAGGCTGTGCCTGAAGCCAGCGACTTGGCGAGCTTTCTAACCATGTTTGTGGTGT  
TGTGATCTTTGCCATCTGCTGGGCTCACTTAAGTGCATCGGCCCTCGCTGTGGCCATCAACCCCAAGAA  
ATGGCTCCCAGATCCCTGAGGGGCTATTTGTCACTAGCTACTTACTGGCTTATTTCAACAGCTGCCTGA  
ATGCCATTGTCTATGGGCTCTTGAACCAAACTCCGCGAGGAATACAAGAGGATCCTCTTGGCCCTTTG  
GAACCCACGCGACTGCATTCAAGATGCTTCAAGGGCAGCCACGCGAGGGGCTGCAGAGCCAGCTCCA  
CCCATCATTGGTGTGCAGCACCAGGAGATGCTCTC

**ACCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG216445 representing NM\_005959  
 Red=Cloning site Green=Tags(s)

MSENGSFANCCEAGGWAVRPGWSGAGSARPSRTPRPPWVAPALSAVLIVTTAVDVVGNLLVILSVLRNRK  
 LRNAGNLFVSLALADLVVAFYYPYPLILVAIFYDGWALGEEHCKASAFVMGLSVIGSVFNITAIINRYC  
 YICHSMAYHRIYRRWHTPLHICLIWLLTVVALLPNFFVGSLEYDPRIYSCFTFIQTASTQYTAAVVVIHFL  
 LPIAVVSFCYLRIWVLLVQARRKAKPESRLCLKPSDLRSFLTMFVVVFVIFAIWAPLNCIGLAVAINPQE  
 MAPQIPEGLFVTSYLLAYFNLSCLNAIVYGLLNQNFRRYKRILLALWNP RHC IQDASKGSHAEGLQSPAP  
 PIIGVQH QADAL

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_005959

**ORF Size:** 1086 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\\_005959.5](#)

**RefSeq Size:** 1662 bp

**RefSeq ORF:** 1089 bp

**Locus ID:** 4544

**UniProt ID:** [P49286](#)

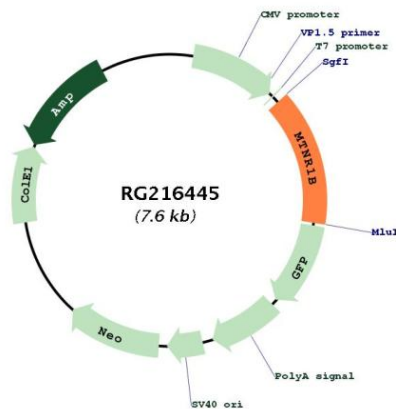
**Cytogenetics:** 11q14.3

**Protein Families:** Druggable Genome, Transmembrane

**Protein Pathways:** Neuroactive ligand-receptor interaction

**Gene Summary:** This gene encodes one of two high affinity forms of a receptor for melatonin, the primary hormone secreted by the pineal gland. This gene product is an integral membrane protein that is a G-protein coupled, 7-transmembrane receptor. It is found primarily in the retina and brain although this detection requires RT-PCR. It is thought to participate in light-dependent functions in the retina and may be involved in the neurobiological effects of melatonin. [provided by RefSeq, Jul 2008]

### Product images:



Circular map for RG216445