

Product datasheet for **RC217839**

Melatonin Related Receptor (GPR50) (NM_004224) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Melatonin Related Receptor (GPR50) (NM_004224) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Melatonin Related Receptor
Synonyms:	H9; Mel1c
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC217839 representing NM_004224
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**GCGATCGCC**

ATGGGGCCACCCCTAGCGGTTCCACCCCTATGGCTGTATTGGCTGTAAGCTACCCAGCCAGAATACC
 CACCGGCTCTAATCATCTTTATGTTCTGCGGATGGTTATCACCATCGTTGTAGACCTAATCGGCAACTC
 CATGGTCAATTTGGCTGTGACGAAGAACAAGAAGCTCCGGAATTCGGCAACATCTTCGTAGTCAGTCTC
 TCTGTGGCCGATATGCTGGTGGCCATCTACCCATACCCCTTGTGCTGCATGCCATGTCCATTGGGGCT
 GGGATCTGAGCCAGTTACAGTGCAGATGGTGGGTTTCACAGGGCTGAGTGTGGTGGCTCCATCTT
 CAACATCGTGGCAATCGCTATCAACCGTACTGCTACATCTGCCACAGCCTCCAGTACGAACGGATCTT
 AGTGTGCGCAATACCTGCATCTACCTGGTATCACCTGGATCATGACCGTCTGGCTGCCTGCCAACA
 TGTACATTGGCACCATCGAGTACGATCCTCGCACCTACACCTGCATCTTCAACTATCTGAACAACCTGT
 CTTCACTGTTACCATCGTCTGCATCCGCTTCGTCTCCCTCTCCTCATCGTGGGTTTCTGCTACGTGAGG
 ATCTGGACCAAAGTGCTGGCGGCCCGTACCCCTGCAGGGCAGAATCCTGACAACCAACTGCTGAGGTT
 GCAATTTTCTAACCATGTTTGTGATCTTCTCCTCTTGTGAGTGTGCTGGTGCCTATCAACGTGCTCAC
 TGTCTTGGTGGCTGTGAGTCCGAAGGAGATGGCAGGCAAGACCCCAACTGGCTTATCTTGACGCCTAC
 TTCATAGCCTACTTCAACAGTGCCTCAACGCTGTGATCTACGGGCTCCTCAATGAGAATTTCCGAAGAG
 AACTGGACCATCTTCCATGCTATGCGGCACCCTATCATATTCTTCTGCGCTCATCAGTGATATTCCG
 TGAGATGCAGGAGGCCGTACCCCTGGCCCGCCCGTGCCTATGCTCGGACCAAGCTCGTGAACAAGAC
 CGTGCCCATGCCTGTCTGTGTGGAGGAAACCCGATGAATGTCGGAATGTTCCATTACCTGGTGATG
 CTGCAGCTGGCCACCCGACCGTGCCTCTGGCCACCCTAAGCCCATTCAGATCCTCCTGCTGCATCG
 CAAATCTGCCTCTACCCACCACAAGTCTGTCTTTAGCCACTCCAAGGCTGCCTCTGGTCACTCAAGCCT
 GTCTCTGGCCACTCCAAGCCTGCCTCTGGTCAACCCCAAGTCTGCCACTGTCTACCCTAAGCCTGCCTCTG
 TCCATTTCAAGGCTGACTCTGTCCATTTCAAGGTGACTCTGTCCATTTCAAGCCTGACTCTGTTTATT
 CAAGCCTGCTTCCAGCAACCCCAAGCCCATCACTGGCCACCATGTCTCTGCTGGCAGCCACTCCAAGTCT
 GCCTTCAGTGTGCCACCAGCCACCCTAAACCCACCCTGGCCACATCAAGCCAGTACCAGCCATGCTG
 AGCCACCCTGCTGACTATCCCAAGCCTGCCACTACCAGCCACCCTAAGCCGCTGCTGCTGACAACCC
 TGAGTCTCTGCCTCCATTGCCCGAGATCCCTGCCATTGCCACCCTGTGTCTGACGACAGTGACCTC
 CCTGAGTCGGCTCTAGCCCTGCCGCTGGGCCACCAAGCCTGCTGCCAGCCAGTGGAGTCTGACACCA
 TCGCTGACCTTCTGACCTACTGTAGTCACTACCAGTACCAATGATTACCATGATGTCGTGGTGTGTA
 TGTTGAAGATGATCCTGATGAAATGGCTGTG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTAA

Protein Sequence:

>RC217839 representing NM_004224
 Red=Cloning site Green=Tags(s)

MGPTLAVPTPYGCI GCKLPQPEYPPAL IIFMFCAMVITIVVDLIGNSMVILAVTKNKKLRNSGNI FVVS
 SVADMLVAIYPYPLMLHAMSIGGWDLSQLQCQMVGFITGLSVVGSIFNIVAIAINRYCYICHSLQYERIF
 SVRNTCIYLVITWIMTVLAVLPNMYIGTIEYDPRTYTCIFNYLNNPVFTVTIVCIRFVLP LLIVGFCYVR
 IWTKVL AARDPAGQNP DNQLAEVRNFLT MFVIFLLFAVCWCPINLTVL VAVSPKEMAGKTPNWL YLAAY
 FIAYFNSCLNAVIYGLLNENFRREYWTIFHAMRHPIIFSGLSIDIREMQEARTLARARAYARDQAREQD
 RAHACPAVEETPMNVRNVPLPGDAAAGHPDRASGHPKPHSRSSAYRKSASTHHSVFSHKAASGHLKP
 VSGHSPASGHPKSATVYPKPASVHFKADSVHFKGDSVHFKPDSVHFKPASSNPKPITGHVHSAGSHSKS
 AFSAATSHPKPTTGHIKPATSHAEPPTADYPKPATTSHPKPAADNPELSASHCPEIPAIAHPVSDSDSL
 PESASSPAAGPTKPAASQLES DTIADLPDPTVVTSTNDYHVVVVDVEDDPDEMAV

TRTRPLEQKLI SEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6200_c03.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_004224

ORF Size: 1851 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 or by calling 301.340.3188 option 3 for pricing and delivery.

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_004224.3](#)

RefSeq Size: 2020 bp

RefSeq ORF: 1854 bp

Locus ID: 9248

UniProt ID: [Q13585](#)

Cytogenetics: Xq28

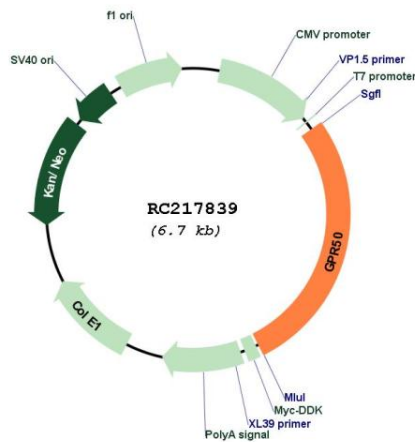
Protein Families: Druggable Genome, GPCR, Transmembrane

Protein Pathways: Neuroactive ligand-receptor interaction

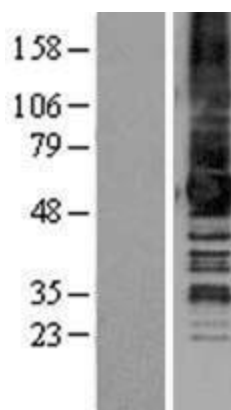
MW: 67.4 kDa

Gene Summary: This gene product belongs to the G-protein coupled receptor 1 family. Even though this protein shares similarity with the melatonin receptors, it does not bind melatonin, however, it inhibits melatonin receptor 1A function through heterodimerization. Polymorphic variants of this gene have been associated with bipolar affective disorder in women. [provided by RefSeq, Jan 2010]

Product images:



Circular map for RC217839



Western blot validation of overexpression lysate (Cat# [LY401354]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC217839 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).