

## Product datasheet for **RC210483**

### MC2 receptor (MC2R) (NM\_000529) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	MC2 receptor (MC2R) (NM_000529) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	MC2 receptor
Synonyms:	ACTHR
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210483 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGCACATTATCAACTCGTATGAAAACATCAACAACACAGCAAGAAATAATCCGACTGTCCTCGTG  
TGGTTTTGCCGGAGGAGATATTTTTACAATTTCCATTGTTGGAGTTTTGGAGAATCTGATCGTCTGCT  
GGCTGTGTTCAAGAATAAGAATCTCCAGGCACCCATGTAATTTTTTCATCTGTAGCTTGGCCATATCTGAT  
ATGCTGGGCAGCCTATATAAGATCTTGAAAATATCCTGATCATATTGAGAAACATGGGCTATCTCAAGC  
CACGTGGCAGTTTTGAAACCACAGCCGATGACATCATCGACTCCCTGTTTGTCTCTCCCTGCTTGGCTC  
CATCTTCAGCCTGTCTGTGATTGCTGCGGACCGCTACATCACCATCTCCACGCACTGCGGTACACAGC  
ATCGTGACCATGCGCCGCACTGTGGTGGTCTTACGGTCACTGGACGTTCTGCACGGGGACTGGCATCA  
CCATGGTGATCTTCTCCCATCATGTGCCACAGTGATCACCTTACGTCGCTGTTCCCGCTGATGCTGGT  
CTTCATCTGTGCTCTATGTGCACATGTTCTGCTGGCTCGATCCCACACCAGGAAGATCTCCACCCTC  
CCCAGAGCCAACATGAAAGGGGCCATCACACTGACCATCTGCTCGGGGTCTTCACTTCTGCTGGGCC  
CCTTTGTGCTTCATGCTCTTGTGATGACATTCTGCCAAGTAACCCCTACTGCGCCTGCTACATGTCTCT  
CTTCCAGGTGAACGGCATGTTGATCATGTGCAATGCCGTCATTGACCCCTCATATATGCCTTCCGGAGC  
CCAGAGCTCAGGGACGCATTCAAAAAGATGATCTTCTGCAGCAGGTACTGG

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC210483 protein sequence  
Red=Cloning site Green=Tags(s)

MKHIINSYENINNTARNNSDCPRVVLPEEIFFTISIVGVLENLIVLLAVFKNKNLQAPMYFFICSLAISD  
 MLGSLYKILENILIILRNMGYLKPRGSFETTADDIIDLFLVLSLLGSIFLSVIAADRYITIFHALRYHS  
 IVTMRRTVVVLTVIWFCTGTGITMVIFSHHVPTVITFTSLFPLMLVFILCLYVHMFLARSHTRKISTL  
 PRANMKGAILTLILLGVFIFCWAPFVLHVLLMTFCPSNPYCACYSLSLFQVNGMLIMCNAVIDPFIYAFRS  
 PELRDAFKKMIFCSRYW

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6071\\_b11.zip](https://cdn.origene.com/chromatograms/mk6071_b11.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_000529

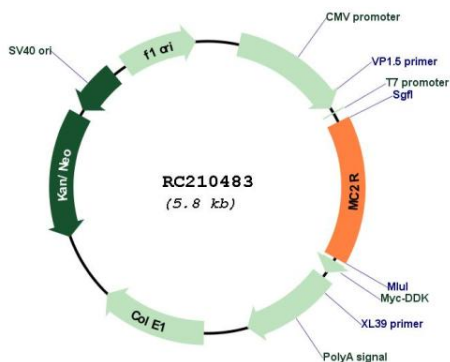
**ORF Size:** 891 bp

**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.

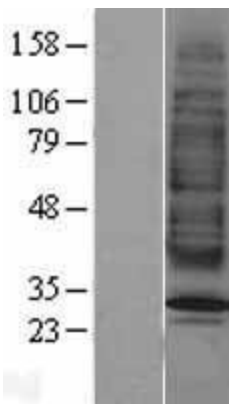
The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. [More info](#)

<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>Note:</b>	Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.
<b>RefSeq:</b>	<a href="#">NM_000529.2</a> , <a href="#">NP_000520.1</a>
<b>RefSeq Size:</b>	3652 bp
<b>RefSeq ORF:</b>	894 bp
<b>Locus ID:</b>	4158
<b>UniProt ID:</b>	<a href="#">Q01718</a>
<b>Cytogenetics:</b>	18p11.21
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Protein Pathways:</b>	Neuroactive ligand-receptor interaction
<b>MW:</b>	33.9 kDa
<b>Gene Summary:</b>	MC2R encodes one member of the five-member G-protein associated melanocortin receptor family. Melanocortins (melanocyte-stimulating hormones and adrenocorticotrophic hormone) are peptides derived from pro-opiomelanocortin (POMC). MC2R is selectively activated by adrenocorticotrophic hormone, whereas the other four melanocortin receptors recognize a variety of melanocortin ligands. Mutations in MC2R can result in familial glucocorticoid deficiency. Alternate transcript variants have been found for this gene. [provided by RefSeq, May 2014]

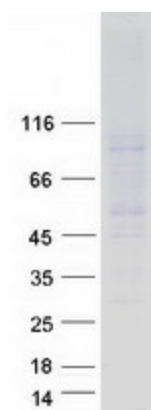
Product images:



Circular map for RC210483



Western blot validation of overexpression lysate (Cat# [LY400177]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210483 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified MC2R protein (Cat# [TP310483]). The protein was produced from HEK293T cells transfected with MC2R cDNA clone (Cat# RC210483) using MegaTran 2.0 (Cat# [TT210002]).