

## Product datasheet for MR223099

### Hcar2 (NM\_030701) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Hcar2 (NM_030701) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Hcar2
Synonyms:	Gpr109a; Gpr109b; HM74; mHM74b; Niacr1; PUMA-G; Pumag
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>MR223099 representing NM_030701 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGCAAGTCAGACATTTTCTAGTGATAAACGGCAAGAAGTCTGTGTGTTCCGAGATGAAAACATCG  
CCAAGGTCTTGCCACCGGTGTTGGGGCTGGAATTTGTGTTCCGACTCCTGGGCAATGGCCTTGCTTGTG  
GATTTTCTGTTTCCACCTCAAGTCTGAAATCCAGCCGATTTTCTGTTCAACTGGCCGTGGCTGAC  
TTTCTCCTGATCATCTGCCTGCCGTTCTGACGGACAACATATGCCATAACTGGGACTGGAGTTCCGGAG  
GCATCCCTTGCCGTGTGATGCTTTCATGTTGGCTATGAACCGACAGGGCAGCATCATCTTCCTCACCGT  
GGTGGCTGTGGACCGCTACTTCCGGGTGGTCCATCCACACCACTTCTGAACAAGATCTCCAACCGGACG  
GCGGCCATCATTTCTTGCTTCTGTGGGGTCTCACCATCGGCCTGACTGTCCACCTCCTCTATAAAACA  
TGATGACCAAAAAATGGCGAGGCATATCTGTGTAGCAGTTCAGCATCTGTTACAACCTCAGGTGGCAGCA  
TGCTATGTTTCTTGGAAATCTTCTTGCCCTGGCCATCATCTTGTCTGCTCAGGCAGGATCATCTGG  
AGCCTGAGGCAGAGACAGATGGACAGACATGCCAAGATCAAGAGGGCCATCAACTTCATCATGGTGGTGG  
CTATTGTATTCATCATTGCTTCTACCCAGTGTGGCTGTGCGCATCCGCATCTTCTGGCTTCTCTACAA  
ATATAACGTACGCAACTGTGACATCTACTCCTCGGTGGACCTGGCTTTCTTTACCACCTTAGCTTTACC  
TACATGAACAGCATGCTGGACCCTGTGGTCTACTATTTTCCAGCCCATTTTCCCAACCTCTTCTCCA  
CGTGATCAACCGCTGCCTTCGAAAGAAAACATTGGGTGAACCCGATAATAACCGAAGCACTAGTGTGGA  
GCTCACGGGGGACCCAGCACAACCAGAAGTATCCAGGGCGCTAATGGCTGACCCAGTGAGCCAGGC  
AGCCCCCTTATCTGGCTTCCACATCTCGT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >MR223099 representing NM\_030701  
 Red=Cloning site Green=Tags(s)

MSKSDHFLVINGKNCCVFRDENIAKVLPPVLGLEFVFGLLGNLALWIFCFHLKSWKSSRIFLFNLA  
 VAD FLLIICLPFLTDNYVHNWDWRFGGIPCRVMLFMLAMNRQGSIIIFLTVVAVDRYFRV  
 VHPHFHFNKISNRT AAIISCFWLGLTIGLTVHLLYTNMMTKNGEAYLCSSFSICYNFRWHDAM  
 FLEFFLPLAIIILFCSGRIIW SLRQRQMDRHAIKRAINFIMVVAIVFIICFLPSVAVRIRIF  
 FWLLYKYNVRNCDIYSSVDLAFFTTLSFT YMNSMLDPVYYFSSPSFPNFFSTCINRCLR  
 KKTLPGEVDNRRSTVELTGPSTTRSIPGALMADPSEPG SPPYLASTSR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_030701

**ORF Size:** 1080 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\\_030701.1](#)

**RefSeq Size:** 1938 bp

**RefSeq ORF:** 1083 bp

**Locus ID:** 80885

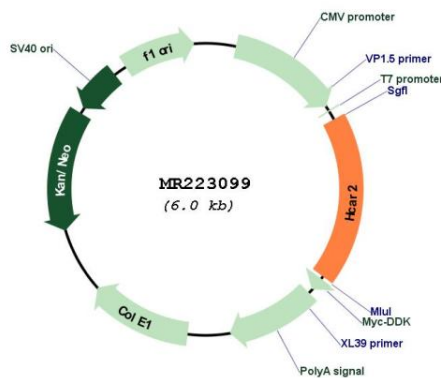
**UniProt ID:** [Q9EP66](#)

**Cytogenetics:** 5 F

**MW:** 41.9 kDa

**Gene Summary:** Acts as a high affinity receptor for both nicotinic acid (also known as niacin) and (D)-beta-hydroxybutyrate and mediates increased adiponectin secretion and decreased lipolysis through G(i)-protein-mediated inhibition of adenylyl cyclase. This pharmacological effect requires nicotinic acid doses that are much higher than those provided by a normal diet. Mediates nicotinic acid-induced apoptosis in mature neutrophils. Receptor activation by nicotinic acid results in reduced cAMP levels which may affect activity of cAMP-dependent protein kinase A and phosphorylation of target proteins, leading to neutrophil apoptosis. [UniProtKB/Swiss-Prot Function]

### Product images:



Circular map for MR223099