

Product datasheet for **RG206527**

HCAR2 (NM_177551) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HCAR2 (NM_177551) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	HCAR2
Synonyms:	GPR109A; HCA2; HM74a; HM74b; NIACR1; Puma-g; PUMAG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206527 representing NM_177551 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATCGGCACCATCTGCAGGATCACTTTCTGGAAATAGACAAGAAGAACTGCTGCGTGTCCGAGATG
ACTTCATTGTCAAGGTGTGCCCGGTGTGGGGCTGGAGTTTATCTTCGGGCTTCTGGGCAATGGCCT
TGCCCTGTGGATTTTCTGTTTCCACCTCAAGTCTGGAAATCCAGCCGGATTTTCTGTTCACCTGGCA
GTGGCTGACTTTCTACTGATCATCTGCCTGCCCTTCTGATGGACAATATGTGAGGCGTTGGGACTGGA
AGTTTGGGACATCCCTTGCCGGCTGATGCTTTCATGTTGGCTATGAACCGCCAGGGCAGCATCATCTT
CCTCACGGTGGTGGCGGTAGACAGGTATTTCCGGGTGGTCCATCCCACCAGCCCTGAACAAGATCTCC
AATCGGACAGCAGCCATCATCTTGCCTTCTGTGGGATCACTATTGGCCTGACAGTCCACCTCCTGA
AGAAGAAGATGCCGATCCAGAATGGCGGTGCAAAATTTGTGACGAGCTTCAGCATCTGCCATACCTTCCA
GTGGCAGGAAGCCATGTTCTCCTGGAGTTCCTCCTGCCCTGGGATCATCCTGTTCTGCTCAGCCAGA
ATTATCTGGAGCCTGCCGAGAGACAAATGGACCGCATGCCAAGATCAAGAGAGCCATCACCTTCATCA
TGGTGGTGGCCATCGTCTTTGTCTGCTTCTTCCCAGCGTGGTGTGCGGATCCGCATCTTCTGGCT
CCTGCACACTTCGGGCACGCAGAATTGTGAAGTGTACCGCTCGGTGGACCTGGCGTTCCTTATCATCTC
AGCTTACCTACATGAACAGCATGCTGGACCCCGTGGTGTACTACTTCTCCAGCCATCCTTTCCCACT
TCTTCTCACTTTGATCAACCGCTGCCTCCAGAGGAAGATGACAGGTGAGCCAGATAATAACCGCAGCAC
GAGCGTCGAGCTCACAGGGGACCCCAACAAAACAGAGGCGCTCCAGAGGCGTTAATGGCCAACCTCCGGT
GAGCCATGGAGCCCTCTTATCTGGGCCAACCTCTCCT

ACCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG206527 representing NM_177551
 Red=Cloning site Green=Tags(s)

MNRHHLQDHFLEIDKKNCCVFRDDFIVKVLPPVLGLEIFGLLGNLALWIFCFHLKSWKSSRIFLFLNLA
 VADFLLIICLPFLMDNYVRRWDWKFGDIPCRMLFMLAMNRQGSIIIFLTVVAVDRYFRVVPHHALNKIS
 NRTAAIISCLLWGITIGLTVHLLKMKPIQNGGANLCCSF SICHTFQWHEAMFLEFFLPLGIILFCSAR
 I IWSLRQRQMDRHAKIKRAITFIMVVAIVFVICFLPSVVVIRIRIFWLLHTSGTQNCDEVYRSVDLAFFITL
 SFTYMNSMLDPVYYFSSPSFPNFFSTLINRCLQRKMTGEPDNNRSTSVELTGDPNKRTRGAPEALMANS
 EPWSPSYLGPTSP

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_177551

ORF Size: 1089 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

RefSeq: [NM_177551.3](#), [NP_808219.1](#)

RefSeq Size: 2082 bp

RefSeq ORF: 1092 bp

Locus ID: 338442

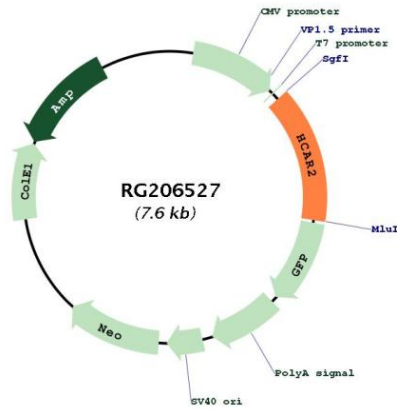
UniProt ID: [Q8TDS4](#)

Cytogenetics: 12q24.31

Protein Families: Druggable Genome, GPCR, Transmembrane

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. The rank order of potency for the displacement of nicotinic acid binding is 5-methyl pyrazole-3-carboxylic acid = pyridine-3-acetic acid > acifran > 5-methyl nicotinic acid = acipimox >> nicotinic acid = nicotinamide.[UniProtKB/Swiss-Prot Function]

Product images:



Circular map for RG206527