

## Product datasheet for **SC309249**

### HCAR2 (NM\_177551) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	HCAR2 (NM_177551) Human Untagged Clone
Tag:	Tag Free
Symbol:	HCAR2
Synonyms:	GPR109A; HCA2; HM74a; HM74b; NIACR1; Puma-g; PUMAG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_177551 edited  
CACCTCCTTGCTGGAGCATTCACTAGGCGAGGCGCTCCATCGGACTCACTAGCCGCACTC  
ATGAATCGGCACCATCTGCAGGATCACTTTCTGGAAATAGACAAGAAGAACTGCTGCGTG  
TTCCGAGATGACTTCATTGTCAAGGTGTTGCCGCCGTGTTGGGGCTGGAGTTTATCTTC  
GGGCTTCTGGGCAATGGCCTTGCCTGTGGATTTCTGTTCCACCTCAAGTCTGGAAA  
TCCAGCCGGATTTCTCTGTTCAACCTGGCAGTGGCTGACTTTCTACTGATCATCTGCCTG  
CCCTTCTGATGGACAACATGTGAGGCGTTGGGACTGGAAGTTTGGGGACATCCCTTGC  
CGGCTGATGCTCTTCATGTTGGCTATGAACCGCCAGGGCAGCATCATCTTCCTCACGGTG  
GTGGCGGTAGACAGGTATTTCCGGGTGGTCCATCCCCACCACGCCCTGAACAAGATCTCC  
AATCGGACAGCAGCCATCATCTTGCCTTCTGTGGGCATCACTATTGGCCTGACAGTC  
CACCTCTGAAGAAGAAGATGCCGATCCAGAATGGCGGTGCAAATTTGTGCAGCAGCTTC  
AGCATCTGCCATACCTTCCAGTGGCACGAAGCCATGTTCTCTGGAGTTCTTCTGCC  
CTGGGCATCATCTGTTCTGCTCAGCCAGAATTATCTGGAGCCTGCGGCAGAGACAAATG  
GACCGGCATGCCAAGATCAAGAGAGCCATCACCTTCATCATGGTGGTGGCCATCGTCTTT  
GTCATCTGCTTCTTCCCAGCGTGGTGTGCGGATCCGCATCTTCTGGCTCTGCACACT  
TCGGGCACGCAGAATTGTGAAGTACCCTCGGTGGACCTGGCGTTCTTTATCACTCTC  
AGTTTACCTACATGAACAGCATGCTGGACCCCGTGGTGTACTACTTCTCCAGCCATCC  
TTTCCAACTTCTTCTCCACTTTGATCAACCGCTGCCTCCAGAGGAAGATGACAGGTGAG  
CCAGATAATAACCGCAGCAGGAGCGTCGAGCTCACAGGGGACCCCAACAAAACCAGAGGC  
GCTCCAGAGGCGTTAATGGCCAACCTCCGGTGGCCATGGAGCCCTTTATCTGGGCCCA  
ACCTCTCCTTAAATAACCATGCCAAGAAGGGACATTGTCACCAAGAACCAGGATCTCTGG  
AGAAACAGTTGGGCTGTTGCATCGAGTAATGTCACCTGGACTCGGCCTAAGGTTTCTGGA  
ACTTCCAGATTCAGAGAATCTGATTTAGGGAACTGTGGCAGATGAGTGGGAGACTGGTT  
GCAAGGTGTACCAGCAGGAATCCTGGAGAACAGAGAGTAAAGCTTCTAGGCATCTGAAA  
CTTTTGCTTCATCTCTGACGCTCGCAGGACTGAAGATGGGCAAATGTAGGCGTTTCTGC  
TGAGCAGAGTTGGAGCCAGAGATCTACTTGTGACTTGTGGCCTTCTTCCACATCTGCC  
TCAGACTGGGGGGGCTCAGCTCCTGGGGTGATATCTAGCCTGCTTGTGAGCTTAGCAG  
GGATAAGGAGAGCTGAGATTGGAGGAATTGTGTTGCTCCTGGAGGGAGCCAGGCATCA  
TTAAACAAGCCAGTAGGTCACCTGGCTCCGTCGACCAATTCATCTTCCAGACAAGCTTT  
AGCAGAAATGGACTCAGGGAAGAGACTCACACGCTTTGGTTAATATCTGTGTTTCCGGTG  
GGTGTAAATAGGGATTAGCCCCAGAAGGGACTGAGCTAAACAGTGTATTATGGGAAAGG  
AAATGGCATTGCTGCTTCAACAGCGACTAATGCAATCCATTCTCTTGTGTTATAGT  
AATCTAAGGGTTGGGAGTTAAAACGGCTTCAGGATAGAAAGCTGTTTCCACCTCTGTT  
TGCTTTTAAACATTAAGGGAAATGTGCCTCTGCCCCACAGTTAGAGGGGTGCACGTTCC  
TCTGTTTCTTCCGTTGTGTTTCTGTACTTACCAAAAATCTACCATTTCAATAAATTTT  
GATAGGAGACAA  
AAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_177551

**Insert Size:** 2200 bp

**OTI Disclaimer:** Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

**OTI Annotation:** This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

<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>RefSeq:</b>	<u>NM_177551.3, NP_808219.1</u>
<b>RefSeq Size:</b>	2082 bp
<b>RefSeq ORF:</b>	1092 bp
<b>Locus ID:</b>	338442
<b>UniProt ID:</b>	<u>Q8TDS4</u>
<b>Cytogenetics:</b>	12q24.31
<b>Protein Families:</b>	Druggable Genome, GPCR, Transmembrane
<b>Gene Summary:</b>	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 >> nicotinuric acid = nicotinamide.[UniProtKB/Swiss-Prot Function]