

Product datasheet for RC206527

HCAR2 (NM_177551) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	HCAR2 (NM_177551) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	HCAR2
Synonyms:	GPR109A; HCA2; HM74a; HM74b; NIACR1; Puma-g; PUMAG
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC206527 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAATCGGCACCATCTGCAGGATCACTTTCTGGAAATAGACAAGAAGAACTGCTGCGTGTCCGAGATG
ACTTCATTGTCAAGGTGTGCCCGGTGTGGGGCTGGAGTTTATCTTCGGGCTTCTGGGCAATGGCCT
TGCCCTGTGGATTTTCTGTTCCACCTCAAGTCTGGAATCCAGCCGGATTTTCTGTTCACCTGGCA
GTGGCTGACTTTCTACTGATCATCTGCCTGCCCTTCTGATGGACAATATGTGAGGCGTTGGGACTGGA
AGTTTGGGACATCCCTTGCCGGCTGATGCTTTCATGTTGGCTATGAACCGCCAGGGCAGCATCATCTT
CCTCACGGTGGTGGCGGTAGACAGGTATTTCCGGGTGGTCCATCCCACCCAGCCCTGAACAAGATCTCC
AATCGGACAGCAGCCATCATCTTGCCTTCTGTGGGATCACTATTGGCCTGACAGTCCACCTCCTGA
AGAAGAAGATGCCGATCCAGAATGGCGGTGCAAAATTTGTGACGAGCTTCAGCATCTGCCATACCTTCCA
GTGGCAGGAAGCCATGTTCTCCTGGAGTTCCTCCTGCCCTGGGATCATCCTGTTCTGCTCAGCCAGA
ATTATCTGGAGCCTGCGGCAGAGACAAATGGACCGCATGCCAAGATCAAGAGAGCCATCACCTTCATCA
TGGTGGTGGCCATCGTCTTTGTCATCTGCTTCTTCCAGCGTGGTGTGCGGATCCGCATCTTCTGGCT
CCTGCACACTTCGGGCACGCAGAATTGTGAAGTGTACCGCTCGGTGGACCTGGCGTTCCTTATCATCTC
AGCTTACCTACATGAACAGCATGCTGGACCCCGTGGTGTACTACTTCTCCAGCCATCCTTTCCCACT
TCTTCTCACTTTGATCAACCGCTGCCTCCAGAGGAAGATGACAGGTGAGCCAGATAATAACCGCAGCAC
GAGCGTCGAGCTCACAGGGGACCCCAACAAAACAGAGGCGCTCCAGAGGCGTTAATGGCCAACCTCCGGT
GAGCCATGGAGCCCTCTTATCTGGGCCAACCTCTCT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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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_177551.4](#)

RefSeq Size: 2082 bp

RefSeq ORF: 1092 bp

Locus ID: 338442

UniProt ID: [Q8TDS4](#)

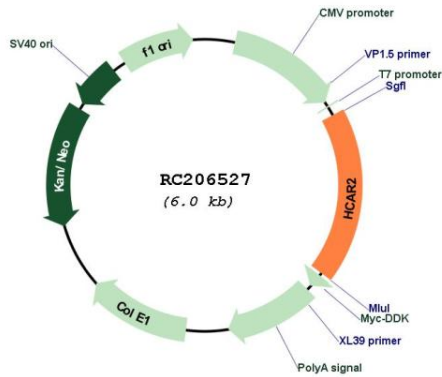
Cytogenetics: 12q24.31

Protein Families: Druggable Genome, GPCR, Transmembrane

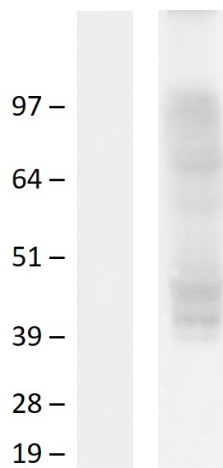
MW: 41.8 kDa

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. 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]

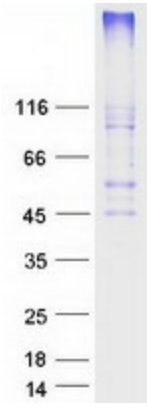
Product images:



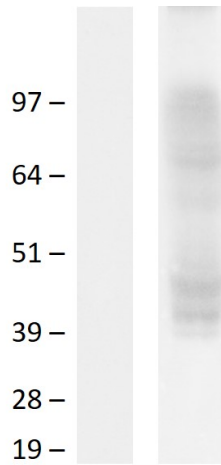
Circular map for RC206527



Western blot validation of overexpression lysate (Cat# [LY406082]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206527 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified HCAR2 protein (Cat# [TP306527]). The protein was produced from HEK293T cells transfected with HCAR2 cDNA clone (Cat# RC206527) using MegaTran 2.0 (Cat# [TT210002]).



Western blot validation of overexpression lysate (Cat# [LY406082]) using an anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206527 using transfection reagent PEI