

Product datasheet for RC210224

Cannabinoid Receptor II (CNR2) (NM_001841) Human Tagged ORF Clone

Product data:

| | |
|---------------------------|---|
| Product Type: | Expression Plasmids |
| Product Name: | Cannabinoid Receptor II (CNR2) (NM_001841) Human Tagged ORF Clone |
| Tag: | Myc-DDK |
| Symbol: | CNR2 |
| Synonyms: | CB-2; CB2; CX5 |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-Entry (PS100001) |
| E. coli Selection: | Kanamycin (25 ug/mL) |
| ORF Nucleotide Sequence: | >RC210224 representing NM_001841 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAGGAATGCTGGGTGACAGAGATAGCCAATGGCTCCAAGGATGGCTTGGATTCCAACCCATGAAGG
ATTACATGATCCTGAGTGGTCCCCAGAAGACAGCTGTTGCTGTGTTGTGCACTCTTCTGGGCCTGCTAAG
TGCCCTGGAGAACGTGGCTGTGCTCTATCTGATCCTGTCTCCACCAGGCTCCGCCGGAAGCCCTCATA
CTGTTTCATTGGCAGCTTGGCTGGGGCTGACTTCTGGCCAGTGTGGTCTTGCATGCAGCTTTGTGAATT
TCCATGTTTTCCATGGTGTGGATTCCAAGGCTGTCTTCTGCTGAAGATTGGCAGCGTGACTATGACCTT
CACAGCCTCTGTGGGTAGCCTCCTGCTGACCGCATTGACCGATACCTCTGCCTGCGCTATCCACCTTCC
TACAAAGCTCTGCTCACCCGTGGAAGGGCACTGGTGACCCCTGGGTATCATGTGGGTCTCTCAGCACTAG
TCTCTACCTGCCCTCATGGGATGGACTTGTGTCCCAGGCCCTGCTCTGAGCTTTTCCACTGATCCC
CAATGACTACCTGCTGAGCTGGCTCCTGTTTCATCGCCTTCTCTTTCCGGAATCATCTACACCTATGGG
CATGTTCTCTGGAAGGCCATCAGCATGTAGCCAGCTTGTCTGGCCACCAGGACAGGCAGGTGCCAGGAA
TGGCCGAATGAGGCTGGATGTGAGGTTGGCCAAGACCCTAGGGCTAGTGTGGCTGTGCTCCTCATCTG
TTGGTTCCAGTGCTGGCCCTCATGGCCACAGCCTGGCCACTACGCTCAGTGACCAGGTCAAGAAGGCC
TTTGCTTCTGCTCCATGCTGTGCCTCATCAACTCCATGGTCAACCCGTGCTATGCTCTACGGAGTG
GAGAGATCCGCTCCTCTGCCATCACTGCCTGGCTCACTGGAAGAAGTGTGTGAGGGCCTTGGGTCAGA
GGCAAAAGAAGAAGCCCCAAGATCCTCAGTCACGGAGACAGAGGCTGATGGGAAAATCACTCCGTGGCCA
GATTCCAGAGATCTAGACCTCTCTGATTGC

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTAA



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Protein Sequence: >RC210224 representing NM_001841
 Red=Cloning site Green=Tags(s)

MEECWVTEIANGSKDGLDSNPMKDYMILSGPQKTAVAVLCTLLGLLSALENVAVLYLILSSHRLRRKPSY
 LFIGSLAGADFLASVVFACSFVNFHVFHGVDSKAVFLLKIGSVTMTFTASVGSLLLTAIDRYLCLRYPPS
 YKALLTRGRALVTLGIMWVLSALVSYLPLMGWTCPPRCELFPLIPNDYLLSWLLFIAFLFSGIITYG
 HVLWKAHQHVASLSGHQDRQVPGMARMRLDVR LAKTLGLVLAVLLICWFPVLALMAHSLATLSDQVKKA
 FAFCSMLCLINSMVNPVIYALRSGEIRSSAHHCLAHWKKCVRGLGSEAKEEAPRSSVTETEDGKITPWP
 DSRDLDSLDC

TRTRP**LEQKLISEEDLA**NDILDYKDDDDKV

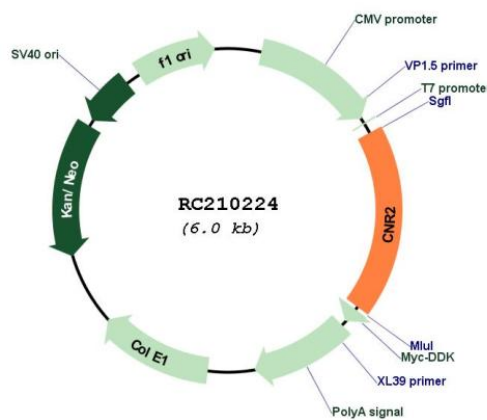
Chromatograms: https://cdn.origene.com/chromatograms/mg2737_e09.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



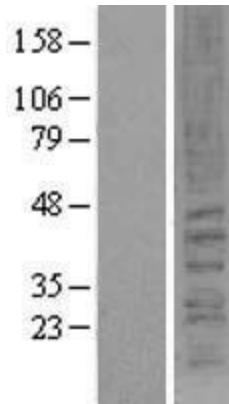
Plasmid Map:



| | |
|-------------------------------|--|
| ACCN: | NM_001841 |
| ORF Size: | 1080 bp |
| OTI Disclaimer: | <p>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 or by calling 301.340.3188 option 3 for pricing and delivery.</p> <p>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</p> |
| 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: | <ol style="list-style-type: none"> 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_001841.3 |
| RefSeq Size: | 1776 bp |
| RefSeq ORF: | 1083 bp |
| Locus ID: | 1269 |
| UniProt ID: | P34972 |
| Cytogenetics: | 1p36.11 |
| Protein Families: | Druggable Genome, GPCR, Transmembrane |
| Protein Pathways: | Neuroactive ligand-receptor interaction |
| MW: | 39.5 kDa |

Gene Summary:

The cannabinoid delta-9-tetrahydrocannabinol is the principal psychoactive ingredient of marijuana. The proteins encoded by this gene and the cannabinoid receptor 1 (brain) (CNR1) gene have the characteristics of a guanine nucleotide-binding protein (G-protein)-coupled receptor for cannabinoids. They inhibit adenylate cyclase activity in a dose-dependent, stereoselective, and pertussis toxin-sensitive manner. These proteins have been found to be involved in the cannabinoid-induced CNS effects (including alterations in mood and cognition) experienced by users of marijuana. The cannabinoid receptors are members of family 1 of the G-protein-coupled receptors. [provided by RefSeq, Jul 2008]

Product images:

Western blot validation of overexpression lysate (Cat# [LY419720]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210224 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).