

Product datasheet for **RG210519**

Kappa Opioid Receptor (OPRK1) (NM_000912) Human Tagged ORF Clone

Product data:

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| Product Type: | Expression Plasmids |
| Product Name: | Kappa Opioid Receptor (OPRK1) (NM_000912) Human Tagged ORF Clone |
| Tag: | TurboGFP |
| Symbol: | Kappa Opioid Receptor |
| Synonyms: | K-OR-1; KOP; KOR; KOR-1; KOR1; OPRK |
| Mammalian Cell Selection: | Neomycin |
| Vector: | pCMV6-AC-GFP (PS100010) |
| E. coli Selection: | Ampicillin (100 ug/mL) |
| ORF Nucleotide Sequence: | >RG210519 representing NM_000912 Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGACTCCCCGATCCAGATCTTCCGCGGGGAGCCTGGCCCTACCTGCGCCCCGAGCGCCTGCCTGCCCC
CCAACAGCAGCGCCTGGTTTCCCGGCTGGGCCGAGCCCGACAGCAACGGCAGCGCCGGCTCGGAGGACGC
GCAGCTGGAGCCCGGCACATCTCCCCGGCATCCCGGTCATCATCACGGCGGTCTACTCCGTAGTGTT
GTCGTGGGCTTGGTGGCAACTCGCTGGTCATGTTCTGTGATCATCCGATACACAAAGATGAAGACAGCAA
CCAACATTTACATATTTAACCTGGCTTTGGCAGATGCTTTAGTTACTACAACCATGCCCTTTCAGAGTAC
GGTCTACTTGATGAATTCCTGGCCTTTTGGGGATGTGCTGTGCAAGATAGTAATTTCCATTGATTACTAC
AACATGTTCAACGACATCTTACCTTGACCATGATGAGCGTGGACCGCTACATTGCCGTGTGCCACCCCG
TGAAGGCTTTGGACTTCCGCACACCCCTTGAAGGCAAAGATCATCAATATCTGCATCTGGCTGCTGTGCTC
ATCTGTTGGCATCTCTGCAATAGTCCTTGGAGGCACCAAAGTCAGGGAAGACGTCGATGTCATTGAGTGC
TCCTTGCAGTTCCCAGATGATGACTACTCCTGGTGGGACCTTTCATGAAGATCTGCGTCTTCATCTTTG
CCTTCGTGATCCCTGTCTCATCATCATCGTCTGCTACACCCTGATGATCCTGCGTCTCAAGAGCGTCCG
GCTCCTTTCTGGCTCCCAGAGAAAGATCGCAACCTGCGTAGGATCACCAGACTGGTCTGGTGGTGGTG
GCAGTCTTCGTGCTGCTGGACTCCCATTACATATTCATCCTGGTGGAGGCTCTGGGGACACCTCCC
ACAGCACAGCTGCTCTCCAGCTATTACTTCTGCATCGCCTTAGGCTATACCAACAGTAGCCTGAATCC
CATTCTCTACGCCTTTCTTGATGAAAACCTCAAGCGGTGTTTCCGGGACTTCTGCTTTCCACTGAAGATG
AGGATGGAGCGGCAGAGCACTAGCAGAGTCCGAAATACAGTTCAGGATCCTGCTTACCTGAGGGACATCG
ATGGGATGAATAAACAGTA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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Protein Sequence: >RG210519 representing NM_000912
 Red=Cloning site Green=Tags(s)

MDSPIQIFRGEPTCAPSACLPPNSSAWFPGWAEPDSNGSAGSEDAQLEPAHISPAIPVIITAVYSVVF
 VVGLVGNLSVMFVIIRYTKMKTATNIYIFNLALADALVTTMPFQSTVYLMNSWPFQDVLCKIVISIDYY
 NMFTSIFTLTMSVDRIYAVCHPVKALDFRTPKAKIINICIWLLSSSVGISAIVLGGTKVREDVDVIEC
 SLQFPDDDDYSWDLFMKICVFI FAFVIPVLIIIVCYTLMILRLKSVRLLSGSREKDRNLRITRLVLVVV
 AVFVVCWTPIHIFILVEALGSTSHSTAALSSYYFCIALGYTNSSLNPILYAFLDENFKRCFRDFCFPLKM
 RMERQSTSRVRNTVQDPAYLRDIDGMNKPV

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_000912

ORF Size: 1140 bp

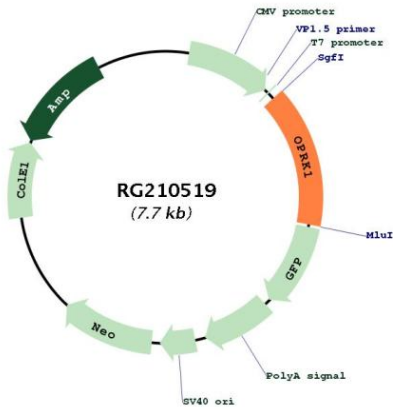
OTI Disclaimer: Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA 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.

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.

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| 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: | <u>NM_000912.3</u> , <u>NP_000903.2</u> |
| RefSeq Size: | 4959 bp |
| RefSeq ORF: | 1143 bp |
| Locus ID: | 4986 |
| UniProt ID: | <u>P41145</u> |
| Cytogenetics: | 8q11.23 |
| Domains: | 7tm_1 |
| Protein Families: | Druggable Genome, GPCR, Transmembrane |
| Protein Pathways: | Neuroactive ligand-receptor interaction |
| Gene Summary: | This gene encodes an opioid receptor, which is a member of the 7 transmembrane-spanning G protein-coupled receptor family. It functions as a receptor for endogenous ligands, as well as a receptor for various synthetic opioids. Ligand binding results in inhibition of adenylate cyclase activity and neurotransmitter release. This opioid receptor plays a role in the perception of pain and mediating the hypolocomotor, analgesic and aversive actions of synthetic opioids. Variations in this gene have also been associated with alcohol dependence and opiate addiction. Alternatively spliced transcript variants encoding different isoforms have been found for this gene. A recent study provided evidence for translational readthrough in this gene, and expression of an additional C-terminally extended isoform via the use of an alternative in-frame translation termination codon. [provided by RefSeq, Dec 2017] |

Product images:



Circular map for RG210519