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# Product datasheet for RG237232

## Kappa Opioid Receptor (OPRK1) (NM_001282904) Human Tagged ORF Clone

### Product data:

| | |
|---|---|
| **Product Type:** | Expression Plasmids |
| **Product Name:** | Kappa Opioid Receptor (OPRK1) (NM_001282904) 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:**

>RG237232 representing NM_001282904.
Blue=ORF Red=Cloning site Green=Tag(s)

GCTCGTTTAGTGAACCGTCAGAATTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGAAGACAGCAACCAACATTTACATATTTAACCTGGCTTTGGCAGATGCTTTAGTTACTACAACCATG
CCCTTTCAGAGTACGGTCTACTTGATGAATTCCTGGCCTTTTGGGGATGTGCTGTGCAAGATAGTAATT
TCCATTGATTACTACAACATGTTCACCAGCATCTTCACCTTGACCATGATGAGCGTGGACCGCTACATT
GCCGTGTGCCACCCCGTGAAGGCTTTGGACTTCCGCACACCCTTGAAGGCAAAGATCATCAATATCTGC
ATCTGGCTGCTGTCGTCATCTGTTGGCATCTCTGCAATAGTCCTTGGAGGCACCAAAGTCAGGGAAGAC
GTCGATGTCATTGAGTGCTCCTTGCAGTTCCCAGATGATGACTACTCCTGGTGGGACCTCTTCATGAAG
ATCTGCGTCTTCATCTTTGCCTTCGTGATCCCTGTCCTCATCATCATCGTCTGCTACACCCTGATGATC
CTGCGTCTCAAGAGCGTCCGGCTCCTTTCTGGCTCCCGAGAGAAAGATCGCAACCTGCGTAGGATCACC
AGACTGGTCCTGGTGGTGGTGGCAGTCTTCGTCGTCTGCTGGACTCCCATTCACATATTCATCCTGGTG
GAGGCTCTGGGGAGCACCTCCCACAGCACAGCTGCTCTCTCCAGCTATTACTTCTGCATCGCCTTAGGC
TATACCAACAGTAGCCTGAATCCCATTCTCTACGCCTTTCTTGATGAAAACTTCAAGCGGTGTTTCCGG
GACTTCTGCTTTCCACTGAAGATGAGGATGGAGCGGCAGAGCACTAGCAGAGTCCGAAATACAGTTCAG
GATCCTGCTTACCTGAGGGACATCGATGGGATGAATAAACCAGTA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC

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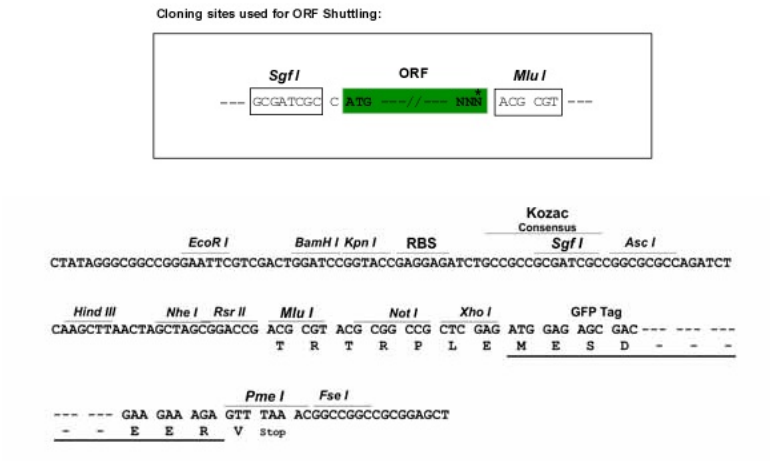
**Protein Sequence:**

>Peptide sequence encoded by RG237232
Blue=ORF Red=Cloning site Green=Tag(s)

MKTATNIYIFNLALADALVTTTMPFQSTVYLMNSWPFGDVLCKIVISIDYYNMFTSIFTLTMMSVDRYI
AVCHPVKALDFRTPLKAKIINICIWLLSSSVGISAIVLGGTKVREDVDVIECSLQFPDDDYSWWDLFMK
ICVFIFAFVIPVLIIIVCYTLMILRLKSVRLLSGSREKDRNLRRITRLVLVVVAVFVVCWTPIHIFILV
EALGSTSHSTAALSSYYFCIALGYTNSSLNPILYAFLDENFKRCFRDFCFPLKMRMERQSTSRVRNTVQ
DPAYLRDIDGMNKPV
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGGEGTPEQGRMTNKMKSTKGALTFSPYLLSHV
MGYGFYHFGTYPSGYENPFLHAINNGGYTNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYYSSVVDSHMHFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**




**ACCN:** NM_001282904

**ORF Size:** 873 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).

**RefSeq:** NM_001282904.1, NP_001269833.1

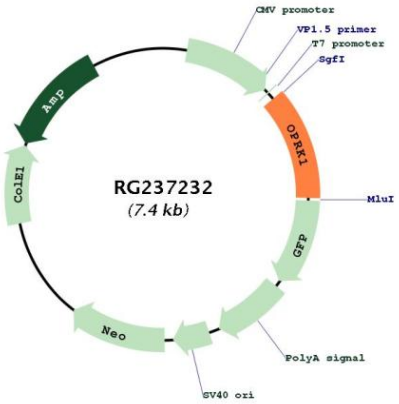
**RefSeq Size:** 5196 bp

**RefSeq ORF:** 876 bp

| | |
|---|---|
| **Locus ID:** | 4986 |
| **UniProt ID:** | P41145 |
| **Cytogenetics:** | 8q11.23 |
| **Protein Families:** | Druggable Genome, GPCR, Transmembrane |
| **Protein Pathways:** | Neuroactive ligand-receptor interaction |
| **MW:** | 33.8 kDa |

**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 RG237232