

## Product datasheet for **RN200637**

### Oprk1 (NM\_017167) Rat Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Oprk1 (NM_017167) Rat Untagged Clone
Tag:	Tag Free
Symbol:	Oprk1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>RN200637 representing NM_017167 Red=Cloning site Blue=ORF Orange=Stop codon

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGAGTCCCCATCCAGATTTCCGCGGAGAGCCAGGCCCTACCTGTGCTCCCAGTGCTTGCCACTCC  
CCAACAGCAGCTCTTGGTTCCCCAACTGGGCCGAATCGGACAGCAATGGCAGTGTGGGCTCCGAGGACCA  
GCAGCTGGAGCCCGCGCACATCTCTCCAGCCATCCCTGTTATCATCACCGCTGTCTACTCTGTGGTGT  
GTGGTGGGCTTAGTGGCAATTCCTGGTCATGTTTGTTCATCCGATACACAAAGATGAAGACCGCAA  
CCAACATCTACATATTTAACCTGGCTTTGGCAGATGCTTTGGTTACTACCACTATGCCCTCCAGATGC  
TGCTACTTGATGAATTCCTGGCCTTTGGAGATGTTCTGTGCAAGATTGTCATTTCCATTGACTACTAC  
AACATGTTTACCAGCATATTCACCTTGACCATGATGAGTGTGGACCGCTACATTGCCGTGTGCCACCCTG  
TGAAAGCTTTGGATTTCCGAACACCTTTGAAAGCAAAGATCATCAACATCTGCATTTGGCTACTGGCATC  
ATCTGTTGGTATATCAGCGATAGTCCTTGGAGGCACCAAAGTCAGGGAAGATGTGGATGTCATTGAATGC  
TCCTTGCAAGTTTCTGATGATGAATATTCCTGGTGGGACCTTTCATGAAGATCTGTGCTTCGCTTTG  
CCTTTGTTATCCCTGTCTTAATCATCATTGTCTGCTACACCTGATGATCCTGCGCTTGAAGAGTGTCCG  
GCTCCTCTCGGGCTCTCGAGAGAAGGACCGAAATCTCCGCCGGATCACCAGCTGGTGTGTTAGTGTT  
GCAGTCTTCATCATCTGTTGGACCCCCATCCACATCTTTATCCTGGTCGAGGCTCTAGGCAGCACCTCCC  
ACAGCACAGCTGTCTCTAGCTATTACTTCTGCATTGCCTTGGGTTATACCAACAGCAGCTTGAATCC  
TGTTCTCTATGCCTTTCTTGATGAAAACCTCAAGCGGTGTTTTAGGGACTTCTGCTTCCCCATTAAGATG  
CGAATGGAGCGCCAGAGCACAACAGAGTTAGAAAACACAGTTCAGGATCCTGCTTCCATGAGGGATGTGG  
GTGGGATGAATAAGCCAGT**TGA**

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAAGGTTTAA

Chromatograms: [https://cdn.origene.com/chromatograms/ja2430\\_b04.zip](https://cdn.origene.com/chromatograms/ja2430_b04.zip)



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<b>Restriction Sites:</b>	Sgfl-Mlul
<b>ACCN:</b>	NM_017167
<b>Insert Size:</b>	1143 bp
<b>OTI Disclaimer:</b>	<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 <a href="mailto:custsupport@origene.com">custsupport@origene.com</a> 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. <a href="#">More info</a></p>
<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><a href="#">NM_017167.2</a></u> , <u><a href="#">NP_058863.1</a></u>
<b>RefSeq Size:</b>	1358 bp
<b>RefSeq ORF:</b>	1143 bp
<b>Locus ID:</b>	29335
<b>UniProt ID:</b>	<u><a href="#">P34975</a></u>
<b>Cytogenetics:</b>	5q12

**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. 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]

**Transcript Variant:** This transcript (1) encodes two isoforms, which result from the use of alternative in-frame translation termination codons. The shorter isoform (1) results from translation termination at the upstream UGA stop codon, while the longer isoform (1x) results from UGA stop codon readthrough to the downstream UGA termination codon. This RefSeq represents the shorter isoform (1). **Sequence Note:** The RefSeq transcript and protein were derived from genomic sequence to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on alignments.