

## Product datasheet for **MG209736**

### Grk2 (NM\_130863) Mouse Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Grk2 (NM_130863) Mouse Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Grk2
Synonyms:	Adrbk-1; Bark-1; beta ARK; betaARK1; GRK2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>MG209736 representing NM\_130863  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGGATCGCC**

ATGCAGAAGTATCTGGAGACCGAGGAGAAGTGACCTTTGAAAAGATCTTTTCGAGAAGTTAGGGTACC  
 TGCTTTTCGGGACTTCTGCCTGAACCATCTGGAAGAGGCCAAGCCCTTGGTGGAGTTCTACGAAGAGAT  
 CAAGAAATATGAGAAGCTGGAGACAGAGGAGGAACGTGTGGTCCGAGCCGAGAGATCTTTGACTCCTAT  
 ATTATGAAAGAAGCTGCTGGCCTGCTCACATCCCTTTTCAAAGAATGCTACGGAGCATGTCCAGGGCCACC  
 TGGTGAAGAAGCAGGTGCCTCCAGATCTTCCAGCCATACATTGAGGAGATTTGTGAGAACCCTCCGAGG  
 GGACGTGTTCCAGAAGTTCATAGAGAGTGACAAGTTCACACGGTCTGCCAGTGAAGAATGTTGAGCTC  
 AACATCCACCTGACCATGAATGACTTCAGTGTGCATCGAATCATCGGGCTGGGGCTCCGGTGAGGTCT  
 ATGGGTGCCGAAAGCAGACACAGGCAAGATGTACGCCATGAAGTGTCTGGACAAGAAACGCATCAAGAT  
 GAAGCAGGGAGAGACCCTGGCTCTGAACGAGCGGATCATGCTTTCCTCGTCAGCACCGGGGACTGCCCC  
 TTCATCGTGTGCATGTATATGCATTCCACACACCAGACAAGCTCAGCTTCATCCTGGACCTCATGAACG  
 GTGGGGACCTGCACTACCACCTGTCTCAGCATGGAGTCTTCTCTGAAGCCGACATGCGCTTCTACGCCG  
 TGAGATCATCCTGGGCTTGAACACATGCAACAATCGCTTTGTAGTCTACAGGGACCTGAAGCCAGCCAAC  
 ATTCTCCTGGATGAACATGGCCATGTGAGAATCTCGGACCTGGGCTAGCCTGTGACTTCTCCAAGAAGA  
 GGCCTCATGCCAGTGTGGGCACACAGGGTACATGGCCCCGAAGTCTACAGAAGGGCGTGGCCTATGA  
 CAGCAGTGCAGACTGGTTCTCCCTGGCTGCATGCTCTCAAGTTGTTGCGGGGACACAGCCCCTCCGG  
 CAGCACAAGACCAAGACAAGCATGAGATTGACCGCATGACGTTGACGATGGCTGTAGAGCTGCCTGACT  
 CCTTCTCCCTGAACTCCGATCCCTGCTGGAAGTGTGTCAGAGGGACGTCATCGGAGACTAGGCTG  
 TCTGGGCGTGGGGCTCAGGAGGTAAGAAAGTCTTTCTTTCTGTTCCCTGGACTGGCAGATGGTCTTC  
 TTACAGAAGTACCCTCCTCCACTGATCCCCCACGTGGGAGGTGAATGCAGCTGACGCTTTCGACATTG  
 GCTCCTTTGATGAGGAGGACACAAAAGGAATCAAGTTACTGGACAGTGACCAGGAACTGTACCGCAACT  
 CCCTCTCACCATCTCTGAGCGGTGGCAACAGGAGTGGCAGAGACTGTCTTTGATACCATCAATGCTGAA  
 ACAGACCGGCTGGAGGCACGAAAGAGGCCAAAAACAACAGCTGGGCCACGAGGAGACTATGCCCTGG  
 GTAAGGACTGCATCGTGCATGGCTACATGTCCAAGATGGCAACCCCTTCTGACCCAGTGGCAGCGGG  
 ATACTTCTACTTGTCCCAACCGGCTCGAGTGGAGGGTGAAGGCGAGGCTCCGACAGAGCTCCTGACC  
 ATGGAGGAGATCCAGTCACTGGAAGAGACAGATCAAGGAACGCAAGTGTCTCCTGCTTAAGATCCGAG  
 GTGGCAAGCAGTTTGTCCCTGCAGTGTGATAGTATCCAGAGCTGGTGAATGGAAAAAGGAGCTCGGTGA  
 TGCCATACCGGAGGCCACGAGCTGGTACAGCGAGTACCAAGATGAAGAACAAGCCACGCTCGCCTGTG  
 GTGGAGCTGAGCAAGGTGCCGCTGATCCAGCGTGGCAGTGCCAACGGCCTC

**ACGCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA

**Protein Sequence:**

>MG209736 representing NM\_130863  
 Red=Cloning site Green=Tags(s)

MQKYLEDRGEVTFEKIFSQKLGYLFRDFCLNHLEEAKPLVEFYEEIKKYEKLETEEERVVRSREIFDSY  
 IMKELLACSHPFKSNATEHVQGHVKKQVPPDLFQPYIEEICQNLRGDVFQKFIKSDKFRFCQWKNVEL  
 NIHLTMNDFSVHRIIGRGGFGEVYGCRKADTGKMYAMKCLDKKRIKMKQGETLALNERIMLSLVSTGDCP  
 FIVCMSYAFHTPKLSFILDLMNGGDLHYHLSQHGVFSEADMRFYAAEIIILGLEHMHNRFFVYRDLKPAN  
 ILLDEHGHVRIIDLGLACDFSKKRPHASVGTGMYMAPEVLQKGVAYDSSADWFLGCMFLKLLRGHSPFR  
 QHKTKDKHEIDRMTLTMAVELPDSFSPELRSLLLEGLLQRDYNRRLLGCLGRGAQEVKESPFRRSLDWQMV  
 LQKYPPPLIPPRGEVNAADAFDIGSFDEEDTKGIKLLDSDQELYRNFPLTISERWQQEVAETVFDINAE  
 TDRLEARKKAKNKQLGHEEDYALGKDCIVHGYMSKMGNPFLTQWQRRYFYLFPNRLEWRGEGEAPQSLT  
 MEEIQSVEETQIKERKCLLLKIRGGKQFVLQCDSDPELVQWKELRDAYREAQQLVQRPVKMKNKPRSPV  
 VELSKVPLIQRGSANGL

**TRTRPLE** - GFP Tag - V



<b>OTI Disclaimer:</b>	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>
<b>OTI Annotation:</b>	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
<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>	<a href="#">NM_130863.2</a>
<b>RefSeq Size:</b>	3332 bp
<b>RefSeq ORF:</b>	1944 bp
<b>Locus ID:</b>	110355
<b>Cytogenetics:</b>	19 3.98 cM
<b>Gene Summary:</b>	Specifically phosphorylates the agonist-occupied form of the beta-adrenergic and closely related receptors, probably inducing a desensitization of them. Key regulator of LPAR1 signaling. Competes with RALA for binding to LPAR1 thus affecting the signaling properties of the receptor. Desensitizes LPAR1 and LPAR2 in a phosphorylation-independent manner. Positively regulates ciliary smoothened (SMO)-dependent Hedgehog (Hh) signaling pathway by facilitating the trafficking of SMO into the cilium and the stimulation of SMO activity. [UniProtKB/Swiss-Prot Function]