

Product datasheet for **MR230892**

Grk2 (NM_001290818) Mouse Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Grk2 (NM_001290818) Mouse Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Grk2
Synonyms:	Adrbk-1; Bark-1; beta ARK; betaARK1; GRK2
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin



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ORF Nucleotide
Sequence:

>MR230892 representing NM_001290818
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGCCGACCTGGAGCGGTGCTGGCCGATGTGAGCTACCTGATGGCCATGGAGAAGAGCAAGGCCACGC
CGGCCGCGCGCCAGCAAGAAGATCCTGCTGCCAGAGCCAGCATCCGAGCGTCATGCAGAAGTATCT
GGAGGACCGAGGAGAAGTGACCTTTGAAAAGATCTTTTCGAGAAGTTAGGGTACCTGCTTTCCGGGAC
TTCTGCCTGAACCATCTGGAAGAGGCCAAGCCCTTGGTGGAGTTCTACGAAGAGATCAAGAAATATGAGA
AGCTGGAGACAGAGGAGGAACGTGTGGTCCGAGCCGAGAGATCTTTGACTCCTATATTATGAAAGAACT
GCTGGCCTGCTCACATCCCTTTCAAAGAATGCTACGGAGCATGTCCAGGGCCACCTGGTGAAGAAGCAG
GTGCCCTCAGATCTTCCAGCCATACATTGAGGAGATTTGTGAGAACCTCCGAGGGGACGTGTTCCAGA
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CATGAATGACTTCAGTGTGCATCGAATCATCGGGCGTGGGGCTTCGGTGAGGTCTATGGGTGCCGAAA
GCAGACACAGGCAAGATGTACGCCATGAAGTGTCTGGACAAGAAACGCATCAAGATGAAGCAGGGAGAGA
CCCTGGCTCTGAACGAGCGGATCATGCTTCCCTCGTCAGCACCCGGGACTGCCCTTATCGTGTGCAT
GTCATATGCATTCCACACACCAGACAAGCTCAGCTTATCCTGGACCTCATGAACGGTGGGGACCTGCAC
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ACATGGCCATGTGAGAATCTCGGACCTGGGCTAGCCTGTGACTTCTCCAAGAAGAGGCCATGCCAGT
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GTCCTGCAGTGTGATAGTATCCAGAGCTGGTGAATGGAAAAAGGAGCTGCGTGATGCCTACCGCAGG
CCCAGCAGCTGGTACAGCGAGTACCCAAGATGAAGAACAAGCCACGCTCGCTGTGGTGGAGCTGAGCAA
GGTGCCGCTGATCCAGCGTGGCAGTGCCAACGGCCTC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >MR230892 representing NM_001290818
 Red=Cloning site Green=Tags(s)

MADLEAVLADVSYLMAMEKSKATPAARASKKILLPEPSIRSVMQKYLEDRGEVTFEKIFISQKLGYLLFRD
 FCLNHLEEKPLVEFYEEIKKYEKLETEEERVVRSREIFDSYIMKELLACSHPPFSKNATEHVQGHVKKQ
 VPPDLFQPYIEEICQNLRGDVFQKFIESDKFTRFCQWKNVELNIHMTMDFSVHRIIGRGGFGEVYGCRK
 ADTGMYAMKCLDKKRIKMKQGETLALNERIMLSLVSTGDCPFIVCMSYAFHTPDKLSFILDLMNGGDLH
 YHLSQHGVSSEADMRFYAAEIIILGLEHMHNRFFVYRDLKPANILLDEHGHVRISDLGLACDFSKKRPHAS
 VGTHGYMAPEVLQKGVAYDSSADWFSLGCMLFKLLRGHSPFRQHKTKDKHEIDRMTLTMAVELPDSFSPE
 LRSLLLEGLLQRDYNRRLGCLGRGAQEVKESPFFRSLDWQMVFLQKYPPPLIPPRGEVNAADAFDIGSFDE
 EDTKGIKLLDSDQELYRNFPLTISERWQQEVAETVFDTINAETDRLEARKKAKNKQLGHEEDYALGKDCI
 VHGYMSKMGNPFLTQWQRRYFYLFPNRLWRGEGEAPQSLLTMEEIQSVEETQIKERKCLLLKIRGGKQF
 VLQCDSDPELVQWKKELRDAYREAQQLVQRVPMKNKPRSPVVELSKVPLIQRGSANGL

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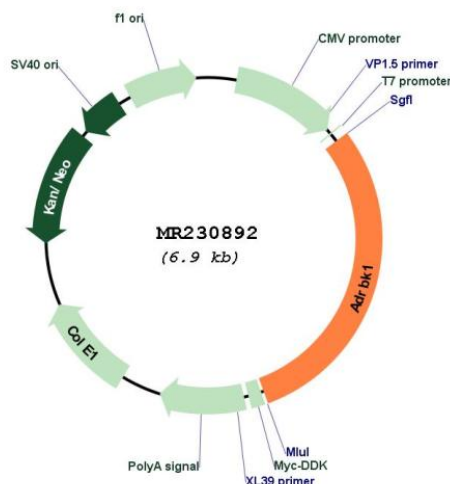
Restriction Sites:

SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001290818

ORF Size: 2067 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).

Reconstitution Method:

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_001290818.1](#), [NP_001277747.1](#)

RefSeq Size: 3379 bp

RefSeq ORF: 2070 bp

Locus ID: 110355

UniProt ID: [Q99MK8](#)

Cytogenetics: 19 3.98 cM

MW: 80.1 kDa

Gene Summary: 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]