

## Product datasheet for **SC116916**

### GRK3 (NM\_005160) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	GRK3 (NM_005160) Human Untagged Clone
Tag:	Tag Free
Symbol:	GRK3
Synonyms:	ADRBK2; BARK2
Mammalian Cell Selection:	None
Vector:	<u><a href="#">pCMV6-XL5</a></u>
E. coli Selection:	Ampicillin (100 ug/mL)



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## Fully Sequenced ORF:

```
>OriGene ORF sequence for NM_005160 edited
ATGGCGGACCTGGAGGCTGTGCTGGCCGATGTCAGTTACCTGATGGCCATGGAGAAGAGC
AAGGCGACCCCGCCGCCCGCCGAGCAAGAGGATCGTCTGCCGGAGCCAGTATCCGG
AGTGTGATGCAGAAGTACCTTGCAGAGAGAAATGAAATAACCTTTGACAAGATTTTCAAT
CAGAAAATTGGTTTCTTGCTATTTAAAGATTTTGTGTTGAATGAAATTAATGAAGCTGTA
CCTCAGGTGAAGTTTTATGAAGAGATAAAGGAATATGAAAACTTGATAATGAGGAAGAC
CGCCTTTGCAGAAGTCGACAAATTTATGATGCCTACATCATGAAGGAACCTTTTCTGT
TCACATCCTTTCTCAAAGCAAGCTGTAGAACACGTACAAAGTCATTTATCCAAGAAACAA
GTGACATCAACTCTTTTTCAGCCATACATAGAAGAAATTTGTGAAAGCCTTCGAGGTGAC
ATTTTTCAAAAATTTATGGAAAGTGACAAGTTCCTAGATTTTGTGAGTGGAAAAACGTT
GAATTAATATCCATTTGACCATGAATGAGTTCAGTGTGCATAGGATTATTGGACGAGGA
GGATTCGGGGAAGTTTATGGTTGCAGGAAAGCAGACACTGGAAAAATGTATGCAATGAAA
TGCTTAGATAAGAAGAGGATCAAATGAAACAAGGAGAAACATTAGCCTTAAATGAAAGA
ATCATGTTGTCTTGTGACACAGGAGACTGTCCTTTTATTGTATGTATGACCTATGCC
TTCCATACCCAGATAAACTCTGCTTCATCCTGGATCTGATGAACGGGGGCGATTGACAC
TACCACCTTTCAACACGGTGTGTTCTCTGAGAAGGAGATGCGGTTTTATGCCACTGAA
ATCATTCTGGGTCTGGAACACATGCACAATCGGTTTTGTTGTCTACAGAGATTTGAAGCCA
GCAAAATTTCTCTGGATGAACATGGACACGCAAGAATATCAGATCTTGGTCTTGCCCTGC
GATTTTTCAAAAAGAAGCCTCATGCGAGTGTGGCACCCATGGGTACATGGCTCCCGAG
GTGCTGCAGAAGGGGACGGCCTATGACAGCAGTCCGACTGGTTCTCCCTGGGCTGCATG
CTTTTCAAACCTTGAGAGGTCACAGCCCTTTAGACAACATAAAACCAAGACAAGCAT
GAAATTGACCGAATGACACTCACCGTGAATGTGGAACCTCCAGACACCTTCTCTCCTGAA
CTGAAGTCCCTTTTGGAGGGCTTGCTTCAAGCAGACGTTAGCAAGCGGCTGGGCTGTAC
GGAGGCGGCTCACAGGAAGTAAAAGAGCACAGCTTTTTCAAAGGTGTTGACTGGCAGCAT
GTCTACTTACAAAAGTACCCACCACCTTGATTCTCCCGGGGAGAAAGTCAATGCTGCT
GATGCCTTTGATATTGGCTCATTTGATGAAGAGGATACCAAAGGGATTAAGCTACTTGAT
TGCGACCAAGAAGTCTACAAGAAGTCCCTTTGGTCTCTCTGAACGCTGGCAGCAAGAA
GTAACGGAAACAGTTTATGAAGCAGTAAATGCAGACACAGATAAAATCGAGGCCAGGAAG
AGAGCTAAAAATAAGCAACTTGCCACGAAGAAGATTACGCTCTGGGGAAGGACTGTATT
ATGCACGGGTACATGCTGAAACTGGGAAACCCATTTCTGACTCAGTGGCAGCGTCGCTAT
TTTTACCTCTTTCAAATAGACTTGAATGGAGAGGAGAGGGAGAGTCCCGCAAAATTTA
CTGACAATGGAACAGATTCTCTGTGGAAGAACTCAAATTAAGACAAAAAATGCATT
TTGTTCAAGATAAAAGGAGGAAACAATTTGTCTTGAATGTGAGAGTGATCCAGAGTTT
GTGAGTGGAAAGAAAGAGTTGAACGAAACCTTCAAGGAGGCCAGCGGCTATTGCGTCGT
GCCCCGAAGTTCTCAACAAACCTCGGTCAGGTACTGTGGAGCTCCCAAAGCCATCCCTC
TGTACAGAAACAGCAACGGCCTCTAG
```

**5' Read Nucleotide Sequence:**

```
>OriGene 5' read for NM_005160 unedited
AAATCTTGGATTTGTATACGACTTATATAGGCGGCCGCGCAATTCGCACGAGGCCAAAGC
TCGCCAACATGGCGGACCTGGAGGCTGTGCTGGCCGATGTCAGTTACCTGATGGCCATGG
AGAAGAGCAAGGCGACCCCGCCGCCAGCAAGAGGATCGTCCTGCCGGAGCCCA
GTATCCGGAGTGTGATGCAGAAGTACCTTGACAGAGAAAATGAAATAACCTTTGACAAGA
TTTTCAATCAGAAAATTGGTTTCTTGCTATTTAAAGATTTTGTGTTGAATGAAATTAATG
AAGCTGTACCTCAGGTGAAGTTTTATGAAGAGATAAAGGAATATGAAAACTTGATAATG
AGGAAGACCGCCTTTGCAGAAGTCGACAAATTTATGATGCCTACATCATGAAGGAACTTC
TTTCTGTTACATCCTTTCTCAAAGCAAGCTGTAGAACACGTACAAAAGTCATTTATCCA
AGAAACAAGTGACATCAACTCTTTTATAGCCATACATAGAAGAAATTTGTGAAAGCCTTC
GAGGTGACATTTTTCAAAAATTTATGAAAGTGACAAGTTCAGTATTTTGTGAGTGGG
AAAACGTTGAATTAATATCCATTTGACCATGAATGAGTTCAGTGTGCATAGGATTATTG
GACGAGGAGGATTCGGGGAAGTTTATGGTTGCAGGANAGCAGACACTGGAAAAATGTATG
CAATGAAATGCTTAGATAAGAAGAGGATCANAATGAAACAAGGAGAAACATTAGCCTTAA
ATGANAGAATCATGTTGCTCTTGTGACACNAGAGACTGTCNCTTCATTGTATGTATGA
CCTATGCCTTNCATACCCAGATAACTCTGCTTCATCCTGGATCTGATGAACGGGGCGA
TTTGCACTACCACCTTTACACAN
```

**3' Read Nucleotide Sequence:**

```
>OriGene 3' read for NM_005160 unedited
GCGGCACGCAATCTAGTATCGAGTTTTTTTTTTTTTTTTTTTTTAAAGACTGATGACATGGNGG
GATTTTCGCTGGTTCTCATAACCCAGCATCTATTTGGGGGTATCAGTGGGGCCTGGAGGCA
GTGGGAGAAAACAACTTACAGGGCAGATGCTGCTGGGACCAGGAAAAAGGCTTCATGC
CCTAAGGTCTCACTGTGTACAGCCCAGTGCAAAGTATCATTTCATGACAGATGCA
TGACGACATGAAAGTCAATATACACAGTTAACCCATTTTACACATTCATTCTCAGCAT
TTTTTCAATACAATTCATCTGAAATTATACTAAGACATAAAACAGACCTGCTTTTGTACA
TCCATTACTGATATGTCTCCAGGGTCAGGCAGAAAGGAACCAGAAATGACTGTCACACAAC
TGCTAATTGTGAGACCTGAGACGGACTCACCCATGAGTGTCTGCTGATGCCAGGTAAGT
CTTGTGACTCGTGCACACTGGACTCAAAGACTTTTAAAACTGCTCTTGCCCTGAAAC
CTAAAACCTCCACGGCCTGTCTTCAGAACTACTGTAATCTTTCCAATGATGGACGGATG
AATGCCTTCAATGATTAGTTAATCCCATACACTTGGATAGTACGTGTCGCTCATTCCCAC
CTGGCTGAGGGGGCCCCGGAACAGACTGGTCAGAGGCAGGGCAGTCATGTGGGTGCGGCT
CCCAGAGGAGGCCAATGCAGAATATCTTCAACTTTAATATATCAGAAATATCTTCACTT
TAACCCAGACAAGAATAGTTGCGAGTGCCATAGTAACCACTGGGCTCTCCATCCCAGC
AGTTGACCAAGACTANAAATCACGTGACTGACGGATATGTGCATGCTTAGGCATCTGTAC
CCAATGACATCTTAAATTCCTGCGAGTCTAGAAGTGTGATTCAGACTAAN
```

**Restriction Sites:**

NotI-NotI

**ACCN:**

NM\_005160

**Insert Size:**

3370 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](mailto: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](#)

**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\\_005160.2](#), [NP\\_005151.1](#)

**RefSeq Size:** 3628 bp

**RefSeq ORF:** 2067 bp

**Locus ID:** 157

**UniProt ID:** [P35626](#)

**Cytogenetics:** 22q12.1

**Domains:** RGS, pkinase, S\_TK\_X, TyrKc, PH, S\_TKc

**Protein Families:** Druggable Genome, Protein Kinase

**Protein Pathways:** Chemokine signaling pathway, Endocytosis, Olfactory transduction

**Gene Summary:** The beta-adrenergic receptor kinase specifically phosphorylates the agonist-occupied form of the beta-adrenergic and related G protein-coupled receptors. Overall, the beta adrenergic receptor kinase 2 has 85% amino acid similarity with beta adrenergic receptor kinase 1, with the protein kinase catalytic domain having 95% similarity. These data suggest the existence of a family of receptor kinases which may serve broadly to regulate receptor function. [provided by RefSeq, Jul 2008]