

## Product datasheet for RC201279

### beta Arrestin 1 (ARRB1) (NM\_004041) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	beta Arrestin 1 (ARRB1) (NM_004041) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	beta Arrestin 1
Synonyms:	ARB1; ARR1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201279 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGCGACAAAGGGACCCGAGTGTTCAGAAGGCCAGTCCAAATGGAAAGCTCACCGTCTACCTGGGAA  
AGCGGGACTTTGTGGACCACATCGACCTCGTGGACCTGTGGATGGTGTGGTCTGGTGGATCCTGAGTA  
TCTCAAAGAGCGGAGAGTCTATGTGACGCTGACCTGCGCCTCCGCTATGGCCGGGAGGACCTGGATGTC  
CTGGCCCTGACCTTCGCAAGGACCTGTTGTGGCCAACGTACAGTCGTTCCACCGGCCCCGAGGACA  
AGAAGCCCTGACGCGGCTGCAGGAACGCCTCATCAAGAAGCTGGGCGAGCACGTTACCCCTTTACCTT  
TGAGATCCCTCCAAACCTTCCATGTTCTGTGACACTGCAGCCGGGCCGGAAGACACGGGAAGGCTTGC  
GGTGTGGACTATGAAGTCAAAGCCTTCTGCGCGGAGAATTTGGAGGAGAAGATCCACAAGCGGAATCTG  
TGCGTCTGGTCATCCGGAAGTTTCAGTATGCCCCAGAGAGGCCTGGCCCCAGCCACAGCCGAGACCAC  
CAGGCAGTTCTCATGTTCGGACAAGCCCTTGCACCTAGAAGCCTCTCTGGATAAAGGAGATCTATTACCAT  
GGAGAACCCATCAGCGTCAACGTCCACGTACCAACAACCAACAAGACGGTGAAGAAGATCAAGATCT  
CAGTGCGCCAGTATGCAGACATCGCTTTTCAACACAGCTCAGTACAAGTGCCTGTTGCCATGGAAGA  
GGCTGATGACACTGTGGCACCCAGCTCGACGTTCTGCAAGGTCTACACACTGACCCCTTCTAGCCAAT  
AACCGAGAGAAGCGGGCCTCGCCTTGGACGGGAAGCTCAAGCAGGAAGACACGAACTTGGCCTTAGCA  
CCCTGTTGAGGGAAGGTGCCAACCGTGAGATCCTGGGGATCATTGTTTCTACAAAGTGAAGTGAAGCT  
GGTGGTGTCTCGGGCGGCTGTTGGGAGATCTTGCATCCAGCGACGTGGCCGTGGAAGTCCCTTACC  
CTAATGCACCCCAAGCCCAAAGAGGAACCCCGCATCGGGAAGTCCAGAGAACGAGACGCCAGTAGATA  
CCAATCTCATAGAACTTGACACAAATGATGACGACATTGATTTGAGGACTTTGCTCGCCAGAGACTGAA  
AGGCATGAAGGATGACAAGGAGGAAGAGGAGGATGGTACCGGCTCTCCACAGCTCAACAACAGA

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201279 protein sequence  
Red=Cloning site Green=Tags(s)

MGDKGTRVFKKASPNGKLTVYLGKRDFVDHIDLVPVDGVVLDPEYLKERRVYVTLTCAFYRGREDLDV  
 LGLTFRKDLFVANVQSFPPAPEDKKPLTRLQERLIKKGHAYPFTFEIPPNLPCSVTLQPGPEDTGKAC  
 GVDYEVKAFCAENLEEKIHKRNSVRLVIRKQYAPERPGPOPTAETTRQFLMSDKPLHLEASLDKEIYYH  
 GEPI SVNVHVTNNTNKT VKKIKI SVRQYADICLFNTAQYKCPVAMEEADDTVAPSSFTCKVYVTLTPFLAN  
 NREKRGLALDGKLGKHDNLASSTLLREGANREILGII VSYKVKVKLVVSRGGLLDLASSDVAVELPFT  
 LMHPKPKEEPHREVPENETPVDTNLIELDTNDDDIVFEDFARQRLKGMKDDKEEEDGTGSPQLNNR

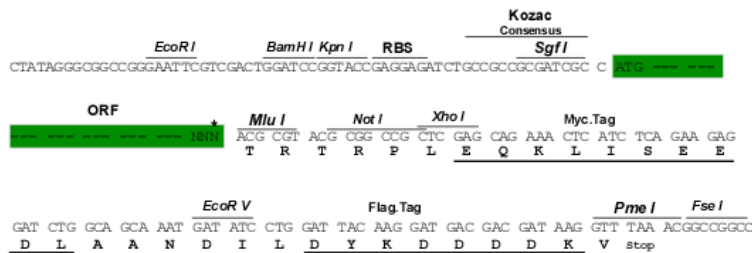
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6572\\_f06.zip](https://cdn.origene.com/chromatograms/mk6572_f06.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



\* The last codon before the Stop codon of the ORF

**ACCN:** NM\_004041

**ORF Size:** 1254 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_004041.5](#)

**RefSeq Size:** 7539 bp

**RefSeq ORF:** 1257 bp

**Locus ID:** 408

**UniProt ID:** [P49407](#)

**Cytogenetics:** 11q13.4

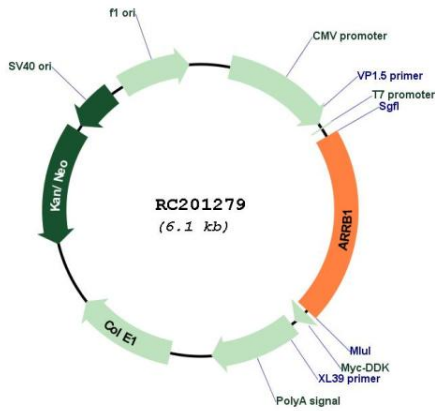
**Protein Families:** Druggable Genome

**Protein Pathways:** Chemokine signaling pathway, Endocytosis, MAPK signaling pathway

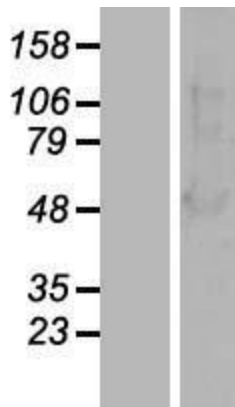
**MW:** 47.1 kDa

**Gene Summary:** Members of arrestin/beta-arrestin protein family are thought to participate in agonist-mediated desensitization of G-protein-coupled receptors and cause specific dampening of cellular responses to stimuli such as hormones, neurotransmitters, or sensory signals. Arrestin beta 1 is a cytosolic protein and acts as a cofactor in the beta-adrenergic receptor kinase (BARK) mediated desensitization of beta-adrenergic receptors. Besides the central nervous system, it is expressed at high levels in peripheral blood leukocytes, and thus the BARK/beta-arrestin system is believed to play a major role in regulating receptor-mediated immune functions. Alternatively spliced transcripts encoding different isoforms of arrestin beta 1 have been described. [provided by RefSeq, Jan 2011]

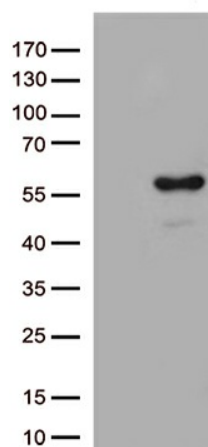
Product images:



Circular map for RC201279



Western blot validation of overexpression lysate (Cat# [LY418298]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201279 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY ARRB1 (Cat# RC201279, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-ARRB1 antibody (Cat# [TA812548])(1:500)