

## Product datasheet for RC202927

### RRAD (NM\_004165) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	RRAD (NM_004165) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	RRAD
Synonyms:	RAD; RAD1; REM3
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202927 representing NM_004165 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGACCCTGAACGGCGGGCAGCGGAGCGGGCGGGAGCCGCGGTGGGGCCAGGAGCGCGAGCGCCGTC  
GGGGCAGCACACCCTGGGGCCCCGCCCGCTGCACCGCCGAGCATGCCGGTGGACGAGCGCGACCT  
GCAGGGCGCGCTGACCCCGGGTGCCTGACGGCGGCCGCGGGACGGGGACCCAGGGTCCCAGGCTG  
GACTGGCCCGAGGACTCCGAGGACTCGCTCAGCTCAGGGGGCAGCGACTCAGACGAGAGCGTTTACAAGG  
TGCTGCTGCTGGGGCGCCCGGCTGGCAAGAGCGCCCTGGCGCGCATCTTCGGCGGTGTGGAGGACGG  
GCCTGAAGCAGAGGCAGCAGGGCACACCTATGATCGCTCCATTGTAGTGGACGGAGAAGAGGCATCACTC  
ATGGTCTACGACATTTGGGAGCAGGACGGGGGCCGCTGTTGCCCGCCACTGCATGGCCATGGGGATG  
CCTATGTCATTGTGACTCAGTGACGGACAAGGGCAGCTTCGAGAAGGCCTCAGAAGTCCGGTCCAGCT  
GCGGCGTGACGGCAAACAGATGATGTGCCATCATCCTCGTGGGCAACAAGAGCGACCTGGTGCCTCT  
CGTGAGGTCTCGGTGGATGAGGGCCGGGCTGCGCGGTGGTCTTTGACTGCAAGTTTATTGAGACATCAG  
CGGCATTGCACCAATGTCCAGGCGTGTTTGAAGGTGTCGTGCCAGATACGCTGCCAGGGACAG  
CAAAGAAGCCAACGCACGACGCAAGCAGGACCCGGAGGCGAGAGGCCTTGGCAAAAAGGCGAAGCGC  
TTCTTGGGCCGATCGTAGCTCGTAACAGCCGAAGATGGCCTTTCGCGCAAATCCAAGTCTGCCACG  
ACCTCTCGTTTCTC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202927 representing NM\_004165  
Red=Cloning site Green=Tags(s)

MTLNNGGSGAGGSRGGGQERERRRGSTPWGPAPPLHRRSMPVDERDLQAALTPGALTAAGTGTQGPRLDWPEDESLSLSSGGSDSESVYKVLVLLGAPGVGKSALARIFGGVEDGPEAEAAGHTYDRSIVVDGEEASLMVYDIWEQDGGRWLPGHCMAMGDAYVIVYSVTDKGSFEKASELRVQLRRARQTDVPIILVGNKSDLVRSREVSVDEGRACAVVFDCKFIETSAALHHNVQALFEGVVRQIRLRRDSKEANARRQAGTRRRESLGGKAKRFLGRIVARNRSMKMAFRAKSKSCHDL SVL

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mg3796\\_a07.zip](https://cdn.origene.com/chromatograms/mg3796_a07.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**

Cloning sites used for ORF Shuttling:



**ACCN:** NM\_004165

**ORF Size:** 924 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\\_004165.3](#)

**RefSeq Size:** 1443 bp

**RefSeq ORF:** 927 bp

**Locus ID:** 6236

**UniProt ID:** [P55042](#)

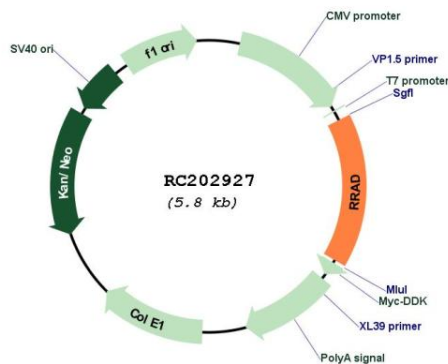
**Cytogenetics:** 16q22.1

**Domains:** ras, RAS, RAB

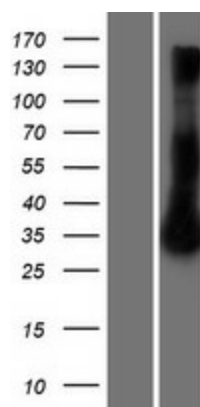
**MW:** 33.1 kDa

**Gene Summary:** May play an important role in cardiac antiarrhythmia via the strong suppression of voltage-gated L-type Ca(2+) currents. Regulates voltage-dependent L-type calcium channel subunit alpha-1C trafficking to the cell membrane (By similarity). Inhibits cardiac hypertrophy through the calmodulin-dependent kinase II (CaMKII) pathway. Inhibits phosphorylation and activation of CAMK2D.[UniProtKB/Swiss-Prot Function]

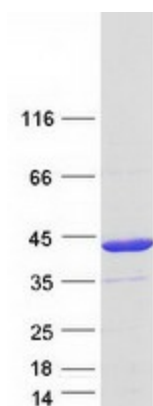
### Product images:



Circular map for RC202927



Western blot validation of overexpression lysate (Cat# [LY427008]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC225433] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified RRAD protein (Cat# [TP302927]). The protein was produced from HEK293T cells transfected with RRAD cDNA clone (Cat# RC202927) using MegaTran 2.0 (Cat# [TT210002]).