

## Product datasheet for **RR200876**

### **Apln (NM\_031612) Rat Tagged ORF Clone**

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Apln (NM\_031612) Rat Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Apln  
**Synonyms:** Apel  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RR200876 representing NM\_031612  
**Red=Cloning site Blue=ORF Green=Tags(s)**

TTTTGTAATACGACTCACTATAGGGCGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**GCGATCGCC**

**ATGAATCTGAGTTTCTGCGTGCAGGCGCTGCTGCTGCTGGCTCTCCTTGACTGCCGTGTGTGGAGTGC**  
**CACTGATGCTGCCTCCAGATGGGAAAGGGCTAGAAGAAGGCAACATGCGCTACCTGGTGAAGCCCAGAAC**  
**TTCGAGGACTGGACCAGGGCCTGGCAGGAGGCAGGAGGAAATTCGCAGACAGCGCCCGTCTCTCC**  
**CATAAGGACCCATGCCTTTC**

**ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT**  
**ACAAGGATGACGACGATAAGGTTTAA**

**Protein Sequence:** >RR200876 representing NM\_031612  
**Red=Cloning site Green=Tags(s)**

MNLSFCVQALLLWLSLTAVCGVPLMLPPDGKLEEGNMRYLVKPRTSRTGPGAWQGRRKFRRQRPRLS  
HKGMPMF

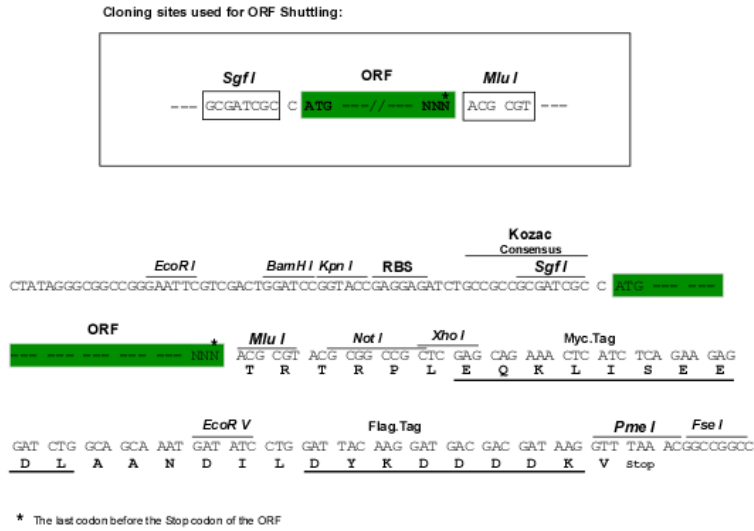
**TRTRPLEQKLISEEDLAANDILDYKDDDDKV**

**Restriction Sites:** Sgfl-MluI

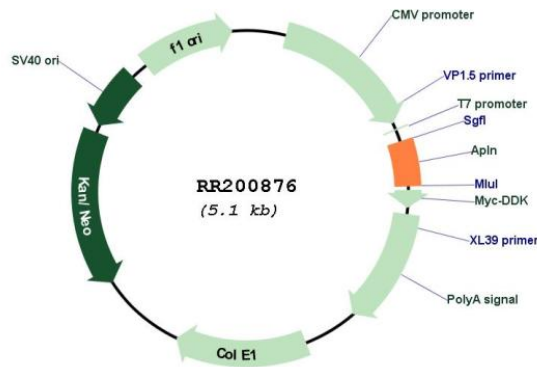


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Cloning Scheme:



Plasmid Map:



ACCN: NM\_031612  
 ORF Size: 231 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](#)

**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\\_031612.3](#), [NP\\_113800.1](#)

**RefSeq Size:** 3114 bp

**RefSeq ORF:** 234 bp

**Locus ID:** 58812

**UniProt ID:** [Q9R0R3](#)

**Cytogenetics:** Xq36

**MW:** 8.7 kDa

**Gene Summary:**

Endogenous ligand for the apelin receptor (APLNR) (PubMed:11336787, PubMed:11359874, PubMed:26611206). Drives internalization of the apelin receptor (PubMed:11359874). Apelin-36 dissociates more hardly than (pyroglu)apelin-13 from APLNR (PubMed:11336787). Hormone involved in the regulation of cardiac precursor cell movements during gastrulation and heart morphogenesis (By similarity). Has an inhibitory effect on cytokine production in response to T-cell receptor/CD3 cross-linking; the oral intake of apelin in the colostrum and the milk might therefore modulate immune responses in neonates (By similarity). Plays a role in early coronary blood vessels formation (By similarity). Mediates myocardial contractility in an ERK1/2-dependent manner (PubMed:26611206). May also have a role in the central control of body fluid homeostasis by influencing vasopressin release and drinking behavior (PubMed:10617103, PubMed:11359874).[UniProtKB/Swiss-Prot Function]