

## Product datasheet for **MR227694**

### Apela (NM\_001297554) Mouse Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Apela (NM\_001297554) Mouse Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** Apela  
**Synonyms:** Ela; Elabela; Ende; ENSMUSG00000074303; Gm10664  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**ORF Nucleotide Sequence:** >MR227694 representing NM\_001297554  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGCGATTCCAGCCCTTTTGGGTATTTTATTTTGCCATGAGTCTCCTTTTATCAGTGAACAGA  
 AACCAGTTAACTTTCCAGGAGAAGAACTATACAGACAACTGCTTTCGAGGAGATGCATTCCACT  
 TCATTCTCGAGTGCCCTCCCA

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >MR227694 representing NM\_001297554  
 Red=Cloning site Green=Tags(s)

MRFQPLFWVFFIFAMSLLFISEQKPVNFPRRRKLYRHNCFRRCIPLHSRVPFP

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Restriction Sites:** SgfI-MluI


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## Cloning Scheme:



ACCN: NM\_001297554

ORF Size: 162 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:

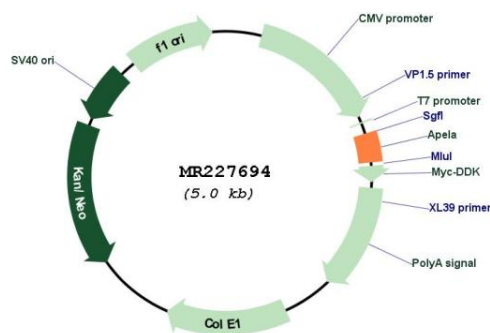
1. Centrifuge at 5,000xg for 5min.
2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.
3. Close the tube and incubate for 10 minutes at room temperature.
4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.
5. Store 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\_001297554.1, NP\_001284483.1  
 RefSeq Size: 990 bp  
 RefSeq ORF: 165 bp  
 Locus ID: 100038489  
 UniProt ID: P0DMC4  
 Cytogenetics: 8  
 MW: 7.3 kDa

**Gene Summary:** Endogenous ligand for the apelin receptor (APLNR) (By similarity). Hormone required for mesendodermal differentiation, blood vessels formation and heart morphogenesis during early development and for adult cardiovascular homeostasis (PubMed:28371822, PubMed:28854362, PubMed:28890073, PubMed:28663440). Drives internalization of the APLNR (By similarity). Acts as a motogen by promoting mesendodermal cell migration during gastrulation by binding and activating APLNR (By similarity). Acts as an early embryonic regulator of cellular movement with a role in migration and development of cardiac progenitor cells (PubMed:28854362). May act as a chemoattractant for the activation of angioblast migration toward the embryonic midline, i.e. the position of the future vessel formation, during vasculogenesis (By similarity). Positively regulates sinus venosus (SV)-derived endothelial cells migration into the developing heart to promote coronary blood vessel sprouting (PubMed:28890073). Plays a role in placental vascular development; promotes placental trophoblast invasion and spiral artery remodeling in the uterus (PubMed:28663440). Involved in the regulation of maternal cardiovascular homeostasis to prevent gestational hypertension and for potent cardioprotective functions during heart failure (PubMed:28371822, PubMed:28663440). Mediates myocardial contractility in an ERK1/2-dependent manner (By similarity).[UniProtKB/Swiss-Prot Function]

## Product images:



Circular map for MR227694