

## Product datasheet for RC236586

### Amelotin (AMTN) (NM\_001286731) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Amelotin (AMTN) (NM\_001286731) Human Tagged ORF Clone  
**Tag:** Myc-DDK  
**Symbol:** AMTN  
**Synonyms:** AI3B; UNQ689  
**Vector:** pCMV6-Entry (PS100001)  
**E. coli Selection:** Kanamycin (25 ug/mL)  
**Cell Selection:** Neomycin  
**ORF Nucleotide Sequence:** >RC236586 representing NM\_001286731  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGATCGCC**

ATGAGGAGTACGATTCTACTGTTTTGTCTTCTAGGATCAACTCGGTCATTACCACTCAAACCTGCTTTGG  
 GACTCCCTCCCACAAAAGTGGCTCCGGATCAGGGAACACTACCAACCAACAGCAGTCAAATCAGGTCTT  
 TCCTTCTTAAAGTCTGATACCATTAACACAGATGCTCACACTGGGCCAGATCTGCATCTGTTAAATCCT  
 GCTGCAGGAATGACACCTGGTACCCAGACCCACCCATTGACCCTGGGAGGTTGAATGTACAACAGCAAC  
 TGCACCCACATGTGTTACCAATTTTTGTACACAACTTGAGGCCAGGGCACTATCCTAAGCTCAGAGGA  
 ATTGCCACAAATCTTACGAGCCTCATCATCCATTCTTGTTCCTGGGAGGCATCCTGCCACCAGTCAG  
 GCAGGGGCTAATCCAGATGTCCAGGATGGAAGCCTTCCAGCAGGAGGAGCAGGTGTAATCCTGCCACCC  
 AGGGAACCCAGCAGGCCGCTCCCAACTCCAGTGCCACAGATGACGACTTTGCAGTGACCACCCCTGC  
 AGGCATCCAAAGGAGCACACATGCCATCGAGGAAGCCACCACAGAATCAGCAAATGGAATTACG

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:** >RC236586 representing NM\_001286731  
 Red=Cloning site Green=Tags(s)

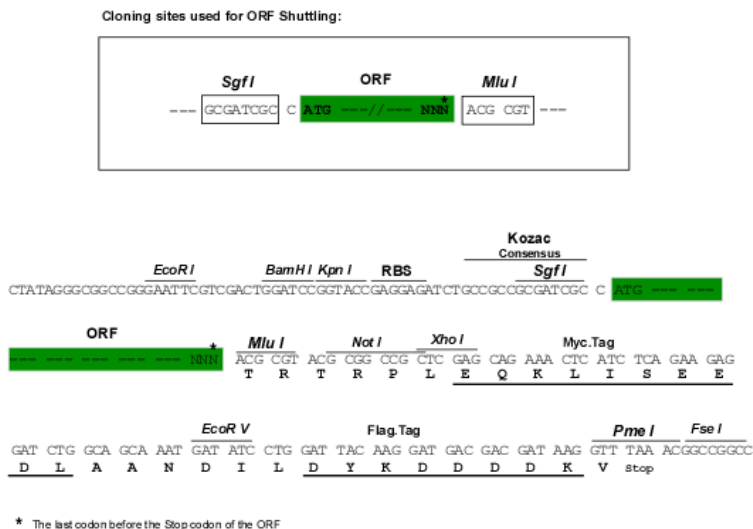
MRSTILLFCLLGSTRSLPLKPALGLPPTKLAPDQGLPNQQSNQVFPSSLIPLTQMLTLGPDHLHLLNP  
 AAGMTPGTQTHPLTLGGLNVQQQLHPHVLPIFVTQLGAQGTILSSEELPQIFTSLLIHSFLFPGGILPSTSQ  
 AGANPDVQDGLPAGGAGVNPATQGTGTPAGRLPTPSGTDGDFAVTTPAGIQRSTHAIIEEATTESANGIQ

**TR**TRPLEQKLI SEEDLAANDILDYKDDDDKV

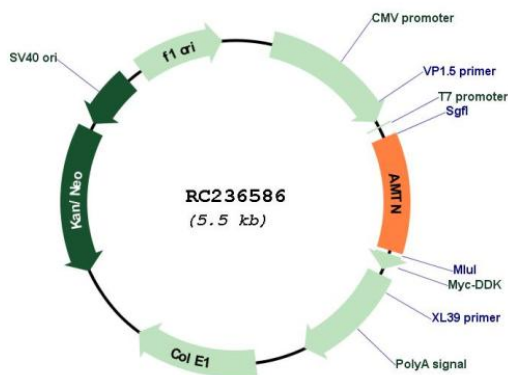
**Restriction Sites:** SgfI-MluI



### Cloning Scheme:



### Plasmid Map:



ACCN: NM\_001286731

ORF Size: 624 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\\_001286731.2](#)

**RefSeq Size:** 1020 bp

**RefSeq ORF:** 627 bp

**Locus ID:** 401138

**UniProt ID:** [Q6UX39](#)

**Cytogenetics:** 4q13.3

**MW:** 21.9 kDa

**Gene Summary:** The mineralized portions of teeth, the dentin and enamel, are formed by mesenchyme-derived odontoblasts and epithelium-derived ameloblasts, respectively. As ameloblasts differentiate, they deposit specific proteins necessary for enamel formation, including amelogenin (AMELX; MIM 300391), enamelin (ENAM; MIM 606585), and ameloblastin (AMBN; MIM 601259), in the organic enamel matrix. Amelotin is specifically expressed in maturation-stage ameloblasts (Iwasaki et al., 2005 [PubMed 16304441]).[supplied by OMIM, Mar 2008]