

Product datasheet for RC221473

Amelotin (AMTN) (NM_212557) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Amelotin (AMTN) (NM_212557) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Amelotin
Synonyms:	A13B; UNQ689
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC221473 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAGGAGTACGATTCTACTGTTTTGTCTTCTAGGATCAACTCGGTCATTACCACAGCTCAAACCTGCTT
TGGGACTCCCTCCACAAAAGTGGCTCCGGATCAGGGAACACTACCAACCAACAGCAGTCAAATCAGGT
CTTTCCTCTTTAAGTCTGATACCATTAAACACAGATGCTCACACTGGGGCCAGATCTGCATCTGTTAAAT
CCTGCTGCAGGAATGACACCTGGTACCCAGACCCACCCATTGACCCTGGGAGGGTTGAATGTACAACAGC
AACTGCACCCACATGTGTACCAATTTTTGTACACAACCTGGAGCCCAGGGCACTATCCTAAGCTCAGA
GGAATTGCCACAAATCTTCACGAGCCTCATCATCCATTCTTGTCCCGGAGGCATCCTGCCACCAAGT
CAGGCAGGGGCTAATCCAGATGTCCAGGATGGAAGCCTTCCAGCAGGAGGAGCAGGTGTAATCCTGCCA
CCCAGGGAACCCAGCAGGCCGCTCCCAACTCCAGTGGCACAGATGACGACTTTGCAAGTACCACCCC
TGCAGGCATCCAAAGGAGCACACATGCCATTGAGGAAGCCACCACAGAATCAGCAATGGAATTCAG

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:	>RC221473 protein sequence Red=Cloning site Green=Tags(s)
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MRSTILLFCLLGSTRSLPQLKPALGLPPTKLAPDQGLPNQQSNQVFPSSLIPLTQMLTLGPDHLHLLN
PAAGMTPGTQTHPLTLGGLNVQQQLHPVLPVIFVTQLGAQGTILSSEELPQIFTSLLIHSFLPFGILPTS
QAGANPDVQDGSLPAGGAGVNPATQGTTPAGRLPTPSGTDDDFAVTTPAGIQRSTHAIEEATTESANGIQ

TRTRPLEQKLISEEDLAANDILDYKDDDDKV



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Chromatograms: https://cdn.origene.com/chromatograms/mk6443_d10.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_212557

ORF Size: 627 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_212557.4](#)

RefSeq Size: 1023 bp

RefSeq ORF: 630 bp

Locus ID: 401138

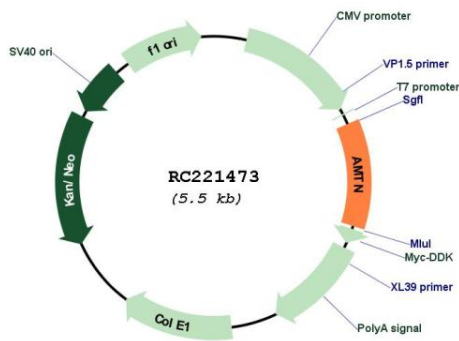
UniProt ID: [Q6UX39](#)

Cytogenetics: 4q13.3

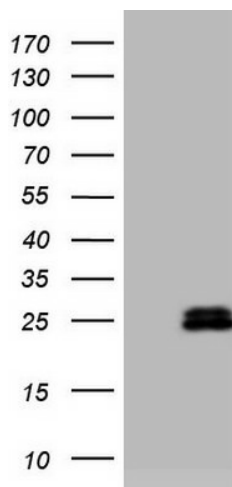
MW: 21.6 kDa

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]

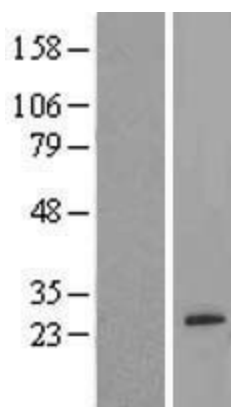
Product images:



Circular map for RC221473



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY AMTN (Cat# RC221473, 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-AMTN (Cat# [TA808526])(1:2000). Positive lysates [LY403899] (100ug) and [LC403899] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY403899]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC221473 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).