

## Product datasheet for RC201187

### Carbonic Anhydrase XI (CA11) (NM\_001217) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Carbonic Anhydrase XI (CA11) (NM_001217) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Carbonic Anhydrase XI
Synonyms:	CA-RP; CA-RP II; CA-XI; CARP-2; CARPX1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC201187 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGGGGGCTGCAGCTCGTCTGAGCGCCCTCGAGCGCTGGTACTCTGGGCTGCACTGGGGGCAGCAGCTC  
ACATCGGACCAGCACCTGACCCCGAGGACTGGTGGAGCTACAAGGATAATCTCCAGGAACTTCGTGCC  
AGGGCCTCCTTTCTGGGGCCTGGTGAATGCAGCGTGGAGTCTGTGTGCTGTGGGAAGCGGCAGAGCCCC  
GTGGATGTGGAGCTGAAGAGGGTCTTTATGACCCCTTTCTGCCCCATTAAGGCTCAGCACTGGAGGAG  
AGAAGCTCGGGGAACCTTGTAACAACCGGCCGACATGTCTCCTTCCTGCCTGCACCCGACCTGTGGT  
CAATGTGTCTGGAGTCCCTCCTTTACAGCCACCGACTCAGTGAAGTGCAGGCTGCTGTTGGAGCTCGC  
GACGGAGCCGGCTCGGAACATCAGATCAACCACCGGGCTTCTCTGCTGAGGTGCAGCTCATTCACTTCA  
ACCAGGAAGTCTACGGGAATTTACAGCGCTGCCTCCCGCGGCCCAATGGCCTGGCCATTCTCAGCCTCTT  
TGTCAACGTTGCCAGTACCTCTAACCCATTCTCAGTCGCTCCTTAACCGCGACACCATCACTCGCATC  
TCCTACAAGAATGATGCCTACTTTCTCAAGACCTGAGCCTGGAGCTCCTGTTCCCTGAATCCTTCGGCT  
TCATCACCTATCAGGGCTCTCTCAGCACCCCGCCTGCTCCGAGACTGTACCTGGATCCTCATTGACCG  
GGCCCTCAATATCACCTCCCTTCAGATGCACTCCCTGAGACTCCTGAGCCAGAATCCTCCATCTCAGATC  
TTCCAGAGCCTCAGCGGTAACAGCCGGCCCTGCAGCCCTTGGCCACAGGGCACTGAGGGGCAACAGGG  
ACCCCGGCACCCCGAGAGGCGCTGCCGAGGCCCAACTACCGCCTGCATGTGGATGGTGTCCCCATGG  
TCGC

**ACGCGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC201187 protein sequence  
Red=Cloning site Green=Tags(s)

MGAAARLSAPRALVLWAALGAAAHIGPAPDPEDWWSYKDNLQGNFVPGPPFWGLVNAAWSLCAVGKRQSP  
 VDVELKRVLYDPFLPPLRLSTGGEKLRGTLYNTGRHVSFLPAPRPVVNVSGGPLLYSHRLSELRLLFGAR  
 DGAGSEHQINHQGFSAEVQLIHFNQEL YGNFSAASRGPNGLA ILSLFVNVASTSNPFLLSRLLNRDITRI  
 SYKNDAYFLQDLSLELLFPESFGFIT YQGS LSTPPCSETVTWILIDRALNITSLQMHSRLLLSQNPSSQI  
 FQSLSGNSRPLQPLAHRALRGNRDPHPERRCRGPNYRLHVDGVPHGR

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6193\\_a09.zip](https://cdn.origene.com/chromatograms/mk6193_a09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001217

**ORF Size:** 984 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\\_001217.5](#)

**RefSeq Size:** 1686 bp

**RefSeq ORF:** 987 bp

**Locus ID:** 770

**UniProt ID:** [O75493](#)

**Cytogenetics:** 19q13.33

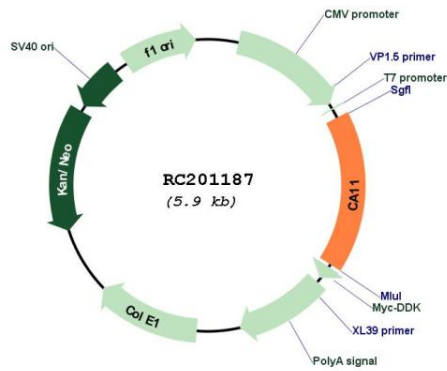
**Domains:** carb\_anhydrase

**Protein Families:** Druggable Genome, Secreted Protein

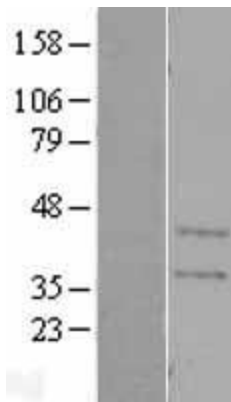
**MW:** 36.2 kDa

**Gene Summary:** Carbonic anhydrases (CAs) are a large family of zinc metalloenzymes that catalyze the reversible hydration of carbon dioxide. They participate in a variety of biological processes, including respiration, calcification, acid-base balance, bone resorption, and the formation of aqueous humor, cerebrospinal fluid, saliva, and gastric acid. They show extensive diversity in tissue distribution and in their subcellular localization. CA XI is likely a secreted protein, however, radical changes at active site residues completely conserved in CA isozymes with catalytic activity, make it unlikely that it has carbonic anhydrase activity. It shares properties in common with two other acatalytic CA isoforms, CA VIII and CA X. CA XI is most abundantly expressed in brain, and may play a general role in the central nervous system. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RC201187



Western blot validation of overexpression lysate (Cat# [LY400486]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201187 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).