

## Product datasheet for **SC324656**

### Carbonic Anhydrase II (CA2) (NM\_000067) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Carbonic Anhydrase II (CA2) (NM_000067) Human Untagged Clone
Tag:	Tag Free
Symbol:	Carbonic Anhydrase II
Synonyms:	CA-II; CAC; CAII; Car2; HEL-76; HEL-S-282
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



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**Fully Sequenced ORF:** >OriGene sequence for NM\_000067.1  
 GGCGCCAAGCCGCCGCCAGATCGGTGCCGATTCCTGCCCTGCCCGACCGCCAGCG  
 CGACCATGTCCCATCACTGGGGGTACGGCAAACAACGGACCTGAGCACTGGCATAAGG  
 ACTTCCCATTGCCAAGGGAGAGCGCCAGTCCCCTGTTGACATCGACACTCATAACAGCCA  
 AGTATGACCCCTCCCTGAAGCCCTGTCTGTTTCTATGATCAAGCAACTCCCTGAGGA  
 TCCTCAACAATGGTCATGCTTTCAACGTGGAGTTTGGATGACTCTCAGGACAAAGCAGTGC  
 TCAAGGGAGGACCCCTGGATGGCACTTACAGATTGATTCAGTTTCACTTTCACTGGGGTT  
 CACTTGATGGACAAGTTTCAGAGCATACTGTGGATAAAAAGAAATATGCTGCAGAACTTC  
 ACTTGGTTCAGTGAACACCAAATATGGGGATTTTGGGAAAGCTGTGCAGCAACCTGATG  
 GACTGGCCGTTCTAGGTATTTTTTGAAGGTTGGCAGCGCTAAACCGGGCCTTCAGAAAAG  
 TTGTTGATGTGCTGGATTCCATTAACAAGGGCAAGAGTGCTGACTTCACAACTTTG  
 CAGCTCGTGGCCTCCTCCTGAATCCCTGGATTACTGGACCTACCCAGGCTCACTGACCA  
 CCCCTCCTCTTGAATGTGTGACCTGGATTGTGCTCAAGGAACCCATCAGCGTCAGCA  
 GCGAGCAGGTGTTGAAATCCGTAACCTAACTTCAATGGGGAGGGTGAACCCGAAGAAC  
 TGATGGTGGACAACCTGGCGCCAGCTCAGCCACTGAAGAACAGGCAAATCAAAGTTCTCT  
 TCAATAAGATGGTCCCATAGTCTGTATCCAAATAATGAATCTTCGGGTGTTTCCCTTTA  
 GCTAAGCACAGATCTACCTTGGTGATTTGGACCCTGGTTGCTTTGTGTCTAGTTTTCTAG  
 ACCCTTCACTCTTACTTGATAGACTTACTAATAAAATGTGAAGACTAGACCAATTGTCA  
 TGCTTGACACAACCTGCTGTGGCTGGTGGTGGCTTTGTTTATGGTAGTAGTTTTCTGTAA  
 CACAGAATATAGGATAAGAAATAAGAATAAAGTACCTTGACTTTGTTTACAGCATGTAGG  
 GTGATGAGCACTACAATTGTTGACTAAAATGCTGCCTTTAAACATAGGAAAGTAGAAT  
 GGTTGAGTGCAATCCATAGCACAAAGATAAATTGAGCTAGTTAAGGCAAATCAGGTAAAA  
 TAGTCATGATTCTATGTAATGTAACAGAAAAATAAATGTTTCATGATTTCAGATGTT  
 ATATTAAGAAAAACTTTAAAAATTATTATATATTTATAGCAAAGTTATCTTAAATATGA  
 ATTCTGTTGTAATTTAATGACTTTTGAATTACAGAGATATAAATGAAGTATTATCTGTAA  
 AAATTGTATAATTAGAGTTGTGATACAGAGTATATTTCCATTACAGCAATATATCATAA  
 CTTAATAAATATTGTATTTTAGATATATCTCTAATAAAATTCAGAATTCAAAAAAA  
 AAAAAAA

**Restriction Sites:** Please inquire

**ACCN:** NM\_000067

**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 TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

<b>Components:</b>	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).
<b>Reconstitution Method:</b>	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
<b>RefSeq:</b>	<a href="#">NM_000067.1</a> , <a href="#">NP_000058.1</a>
<b>RefSeq Size:</b>	1551 bp
<b>RefSeq ORF:</b>	783 bp
<b>Locus ID:</b>	760
<b>UniProt ID:</b>	<a href="#">P00918</a>
<b>Cytogenetics:</b>	8q21.2
<b>Domains:</b>	carb_anhydrase
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Nitrogen metabolism
<b>Gene Summary:</b>	<p>The protein encoded by this gene is one of several isozymes of carbonic anhydrase, which catalyzes reversible hydration of carbon dioxide. Defects in this enzyme are associated with osteopetrosis and renal tubular acidosis. Two transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Jun 2014]</p> <p>Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).</p>