

## Product datasheet for SC308325

### CA12 (NM\_206925) Human Untagged Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	CA12 (NM_206925) Human Untagged Clone
Tag:	Tag Free
Symbol:	CA12
Synonyms:	CA-XII; CAXII; HsT18816; T18816
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Fully Sequenced ORF:	>SC308325 representing NM_206925. Blue=Insert sequence Red=Cloning site Green=Tag(s)

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GCTCGTTTGTAGTAACCGTCAGAATTTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGCCCGGCGCAGCCTGCACGCGCGCGCGTCTCTGCTGGTATCTTAAAGGAACAGCCTTCCAGC
CCGGCCCCAGTGAACGGTTCCAAGTGGACTTATTTGGTCTGATGGGGAGAATAGCTGGTCCAAGAAG
TACCCGTCGTGTGGGGCCTGCTGCAGTCCCCATAGACCTGCACAGTGACATCCTCCAGTATGACGCC
AGCCTCACGCCCTCGAGTTCCAAGGCTACAATCTGTCTGCCAACAGCAGTTTCTCTGACCAACAAT
GGCCATTCAGTGAAGCTGAACCTGCCCTCGACATGCACATCCAGGGCCTCCAGTCTCGTACAGTGCC
ACGCAGCTGCACCTGCACTGGGGAAACCGAATGACCCGCACGGCTCTGAGCACACCGTACGCGGACAG
CACTTCGCCGCCGAGCTGCACATTGTCCATTATAACTCAGACCTTATCCTGACGCCAGCACTGCCAGC
AACAAAGTCAGAAGGCCTCGCTGTCTGGCTGTTCTCATTGAGATGGGCTCCTTAATCCGTCCTATGAC
AAGATCTTCAGTCACTTCAACATGTAAAGTACAAAGGCCAGGAAGCATTTCGTCGCCGGGATTCAACATT
GAAGAGCTGCTTCGGGAGAGGACCGCTGAATATTACCGCTACCGGGGGTCCCTGACCACACCCCTTGC
AACCCCACTGTGCTCTGGACAGTTTTCCGAAACCCCGTCAAATTTCCAGGAGCAGCTGCTGGCTTTG
GAGACAGCCCTGTACTGCACACACATGGACGACCTTCCCCAGAGAAATGATCAACAACCTCCGGCAG
GTCCAGAAGTTCGATGAGAGGCTGGTATACACCTCCTTCTCCAAAGGCATCATCTCTACTGGCCCTG
GCTGGCATTCTTGGCATCTGTATTGTGGTGGTGGTCCATTGGCTTTTCAGAAGGAAGAGATATCAAA
AAAGGTGATAACAAGGGAGTCATTTACAAGCCAGCCACCAAGATGGAGACTGAGGCCACCGTTGA
ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGAT
TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
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Restriction Sites:	Sgfl-MluI
Plasmid Map:	<input type="checkbox"/>
ACCN:	NM_206925



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<b>Insert Size:</b>	1032 bp
<b>OTI Disclaimer:</b>	Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).
<b>OTI Annotation:</b>	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>	<u><a href="#">NM_206925.2</a></u>
<b>RefSeq Size:</b>	4176 bp
<b>RefSeq ORF:</b>	1032 bp
<b>Locus ID:</b>	771
<b>UniProt ID:</b>	<u><a href="#">O43570</a></u>
<b>Cytogenetics:</b>	15q22.2
<b>Protein Families:</b>	Druggable Genome, Transmembrane
<b>Protein Pathways:</b>	Nitrogen metabolism
<b>MW:</b>	38.4 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. This gene product is a type I membrane protein that is highly expressed in normal tissues, such as kidney, colon and pancreas, and has been found to be overexpressed in 10% of clear cell renal carcinomas. Three transcript variants encoding different isoforms have been identified for this gene. [provided by RefSeq, Jun 2014]

Transcript Variant: This variant (2) lacks an alternate in-frame exon compared to variant 1. The resulting isoform (2) has the same N- and C-termini but is shorter compared to isoform 1.

Sequence Note: This RefSeq record was created from transcript and genomic sequence data to make the sequence consistent with the reference genome assembly. The genomic coordinates used for the transcript record were based on transcript alignments.