OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for SC327421

Carbonic Anhydrase I (CA1) (NM_001164830) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carbonic Anhydrase I (CA1) (NM_001164830) Human Untagged Clone
Tag:	Tag Free
Symbol:	CA1
Synonyms:	CA-I; CAB; Car1; HEL-S-11
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001164830, the custom clone sequence may differ by one or more nucleotides ATGGCAAGTCCAGACTGGGGATATGATGACAAAAATGGTCCTGAACAATGGAGCAAGCTG TATCCCATTGCCAATGGAAATAACCAGTCCCCTGTTGATATTAAAACCAGTGAAACCAAA CATGACACCTCTCTGAAACCTATTAGTGTCTCCTACAACCCAGCCACAGCCAAAGAAATT ATCAATGTGGGGCATTCCTTCCATGTAAATTTTGAGGACAACGATAACCGATCAGTGCTG AAAGGTGGTCCTTTCTCTGACAGCTACAGGCTCTTTCAGTTCCATTTTCACTGGGGCAGT ACAAATGAGCATGGTTCAGAACATACAGTGGATGGAGTCAAATATTCTGCCGAGCTTCAC GTAGCTCACTGGAATTCTGCAAAGTACTCCAGCCTTGCTGAAGCTGCCTCAAAGGCTGAT GGTTTGGCAGTTATTGGTGTTTTGATGAAGGTTGGTGAGGCCAACCCAAAGCTGCAGAAA GTACTTGATGCCCTCCAAGCAATTAAAACCAAGGGCAAACGAGCCCCATTCACAAATTTT GACCCCTCTACTCTCCTTCCTTCATCCCTGGATTTCTGGACCTACCCTGGCTCTCTGACT CATCCTCCTCTTTATGAGAGTGTAACTTGGATCATCTGTAAGGAGAGCATCAGTGTCAGC TCAGAGCAGCTGGCACAATTCCGCAGCCTTCTATCAAATGTTGAAGGTGATAACGCTGTC CCCATGCAGCACAACAACCGCCCAACCCAACCTCTGAAGGGCAGAACAGTGAGAGCTTCA TTT
Restriction Sites:	Please inquire
ACCN:	NM_001164830
OTI Disclaimer:	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).

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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.
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_001164830.1, NP_001158302.1
RefSeq Size:	1211 bp
RefSeq ORF:	786 bp
Locus ID:	759
UniProt ID:	P00915
Cytogenetics:	8q21.2
Protein Families:	Druggable Genome
Protein Pathways:	Nitrogen metabolism
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. This CA1 gene is closely linked to the CA2 and CA3 genes on chromosome 8. It encodes a cytosolic protein that is found at the highest level in erythrocytes. Allelic variants of this gene have been described in some populations. Alternative splicing and the use of alternative promoters results in multiple transcript variants. [provided by RefSeq, Nov 2016] Transcript Variant: This variant (5) differs in the 5' UTR, compared to variant 3. Variants 1, 2, 3, 4 and 5 all encode isoform a. This variant represents use of an alternate downstream promoter and results in colon epithelia cell expression.