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Product datasheet for SC119399

CA12 (NM_001218) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CA12 (NM_001218) Human Untagged Clone
Tag:	Tag Free
Symbol:	CA12
Synonyms:	CA-XII; CAXII; HsT18816; T18816
Mammalian Cell Selection:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)
Fully Sequenced ORF:	>NCBI ORF sequence for NM_001218, the custom clone sequence may differ by one or more nucleotides

ATGCCCCGGCGCAGCCTGCACGCGGCGGCCGTGCTCCTGCTGGTGATCTTAAAGGAACAGCCTTCCAGCC
CGGCCCCAGTGAACGGTTCCAAGTGGACTTATTTTGGTCCTGATGGGGAGAATAGCTGGTCCAAGAAGTA
CCCGTCGTGTGGGGGCCTGCTGCAGTCCCCCATAGACCTGCACAGTGACATCCTCCAGTATGACGCCAGC
CTCACGCCCCTCGAGTTCCAAGGCTACAATCTGTCTGCCAACAAGCAGTTTCTCCTGACCAACAATGGCC
ATTCAGTGAAGCTGAACCTGCCCTCGGACATGCACATCCAGGGCCTCCAGTCTCGCTACAGTGCCACGCA
GCTGCACCTGCACTGGGGGAACCCGAATGACCCGCACGGCTCTGAGCACACCGTCAGCGGACAGCACTTC
GCCGCCGAGCTGCACATTGTCCATTATAACTCAGACCTTTATCCTGACGCCAGCACTGCCAGCAACAAGT
CAGAAGGCCTCGCTGTCCTGGCTGTTCTCATTGAGATGGGCTCCTTCAATCCGTCCTATGACAAGATCTT
CAGTCACCTTCAACATGTAAAGTACAAAGGCCAGGAAGCATTCGTCCCGGGATTCAACATTGAAGAGCTG
CTTCCGGAGAGGACCGCTGAATATTACCGCTACCGGGGGTCCCTGACCACACCCCCTTGCAACCCCACTG
TGCTCTGGACAGTTTTCCGAAACCCCGTGCAAATTTCCCAGGAGCAGCTGCTGGCTTTGGAGACAGCCCT
GTACTGCACACACATGGACGACCCTTCCCCCAGAGAAATGATCAACAACTTCCGGCAGGTCCAGAAGTTC
GATGAGAGGCTGGTATACACCTCCTTCTCCCAAGTGCAAGTCTGTACTGCGGCAGGACTGAGTCTGGGCA
TCATCCTCTCACTGGCCCTGGCTGGCATTCTTGGCATCTGTATTGTGGTGGTGGTGTCCATTTGGCTTTT
CAGAAGGAAGAGTATCAAAAAAGGTGATAACAAGGGAGTCATTTACAAGCCAGCCACCAAGATGGAGACT
GAGGCCCACGCTTGA

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5' Read Nucleotide Sequence:

>OriGene 5' read for NM_001218 unedited
GGGTTTTGTATACGACTCACTATAGGGCGGCCGCGATTCGGCACGAGGCTCGCCACGGCA
CCCAGGCTGCGCGCACGCGGTCCCGGTGTGCAGCTGGAGAGCGAGCGGCCACCGGGAGCC
CCCGGCACAGCCCGCGCCCGCCCCGCAGGAGCCCGCGAAGATGCCCCGGCGCAGCCTGCA
CGCGGCGGCCGTGCTCCTGCTGGTGATCTTAAAGGAACAGCCTTCCAGCCCGGCCCCAGT
GAACGGTTCCAAGTGGACTTATTTTGGTCCTGATGGGGAGAATAGCTGGTCCAAGAAGTA
CCCGTCGTGTGGGGGCCTGCTGCAGTCCCCCATAGACCTGCACAGTGACATCCTCCAGTA
TGACGCCAGCCTCACGCCCCTCGAGTTCCAAGGCTACAATCTGTCTGCCAACAAGCAGTT
TCTCCTGACCAACAATGGCCATTCAGTGAAGCTGAACCTGCCCTCGGACATGCACATCCA
GGGCCTCCAGTCTCGCTACAGTGCCACGCAGCTGCACCTGCACTGGGGGAACCCGAATGA
CCCGCACGGCTCTGAGCACACCGTCAGCGGACAGCACTTCGCCGCCGAGCTGCACATTGT
CCATTATAACTCAGACCTTTATCCTGACGCCAGCACTGCCAGCAACAAGTCAGAAGGCCT
CGCTGTCCTGGCTGTTCTCATTGAGATGGGCTCCTTCAATCCGTCCTATGACAAGATCTT
CAGTCACCTTCAACATGTAAAGTACAAAGGCCANGAAGCATTCGTCCCGGGATTCAACAT
TGAAGAGCTGCTTNCGGAGAGACCGCTNGATATTACCGCTACCGGNGGTCCCTGACACAC
CCCCTTTGCACCCCACTGTGCTCTGGACAGTTTTCCGAAACCCCCGTGCAATTTCCAGGA
GCAGCTGCTGGCTTTGGAGACGCCCTGTACTCACACCATGGACGACCCTCCCCAN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_001218 unedited
CGCGGGCCGCAATCTAGNATCGAGTTTTTTTTTTTTTTTTTTGAGATGGAGTCTCGCTCT
GTCACCCAGGCTAGAGTGCAGTGGCATGACCTTGGCTTACTGCAACCTCCGCCTCCTGGG
TTCAAGCGATTCCAGAAGAGAGAATTCTTAGAGTCAGAGGGAGGAGTAGAAGGAAAAAGA
TATTTAAAAAGCTATGCTTCAAGAGGACATTTCATGCTGTCAAAATGAGACTGTGAATCA
GAAAGTTCTCGGGGAACTGCAAGGTGCTCTCAACTAGGGGTCGGTTCCTTCTCAGTCATG
GCACTGACTCATCTCCACAGGGTTCTCACCTGCGGGAGGAAAATGGAGGAGTTGCGCCTG
TCAGAAACTGTCTGTGTGATTCGGGGAAGAATATGGAGTATCTTAGTAGCATTCCATTAT
TACTTGCCCCTAAATACATGATGCCAGCCCCCTGCACAGATAACCTCCTGCTTTTATAGC
TTGAAATATATTTGATCTAAACCACGATTTGACATCTTCAGAGAGAGAGAAGTAGATAAA
AGTCTCCATTCCAGGTTGGCAGTAGGGATCCTGCAGAAGTGGCTGAAATGAAATTTGGCC
TACAGAGAATAAGTTCTACAGTCATTTTGTTTCTGCCTATTTCCTCCAGATTCAAAGGCA
GATTGGGTCATCTCGGAACTCATGTCTCCTCCAGGACACAGCAACAACACATTTTCAAGG
AACAGCCTCATTATTTGTAAAATCTGTAGAGTATAAAACATAACTGCTCCACTGACAGGA
GGGNTGGATNTGGGACTNNATATGNATTATTCTGTCCTTACATTATGGCTGATAACAGAT
GTGATTCCATTCTGATCCAAGTGAGACCTNCCANACATCCTGTCTCTCATCTCTTGGCCT
CTAGCTTTCTCCTCTCTCCCACCAGAGTGGNACTGACTGCANCCCTAGCTGGCAGGCT

Restriction Sites: NotI-NotI

ACCN: NM_001218

Insert Size: 2790 bp

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).

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).

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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_001218.3, NP_001209.1
RefSeq Size:	3992 bp
RefSeq ORF:	1065 bp
Locus ID:	771
UniProt ID:	O43570
Cytogenetics:	15q22.2
Domains:	carb_anhydrase
Protein Families:	Druggable Genome, Transmembrane
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. 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 (1) represents the longer transcript and encodes the longer 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.

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