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Product datasheet for SC107902

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:	None
Vector:	pCMV6-XL5
E. coli Selection:	Ampicillin (100 ug/mL)

Fully Sequenced ORF:

>OriGene ORF within SC107902 sequence for NM_000067 edited (data generated by NextGen Sequencing)

ATGTCCCATCACTGGGGGTACGGCAAACACAACGGACCTGAGCACTGGCATAAGGACTTC
CCCATTGCCAAGGGAGAGCGCCAGTCCCCTGTTGACATCGACACTCATACAGCCAAGTAT
GACCCTTCCCTGAAGCCCCTGTCTGTTTCCTATGATCAAGCAACTTCCCTGAGGATCCTC
AACAATGGTCATGCTTTCAACGTGGAGTTTGATGACTCTCAGGACAAAGCAGTGCTCAAG
GGAGGACCCCTGGATGGCACTTACAGATTGATTCAGTTTCACTTTCACTGGGGTTCACTT
GATGGACAAGGTTCAGAGCATACTGTGGATAAAAAGAAATATGCTGCAGAACTTCACTTG
GTTCACTGGAACACCAAATATGGGGATTTTGGGAAAGCTGTGCAGCAACCTGATGGACTG
GCCGTTCTAGGTATTTTTTTTGAAGGTTGGCAGCGCTAAACCGGGCCTTCAGAAAGTTGTT
GATGTGCTGGATTCCATTAAAACAAAGGGCAAGAGTGCTGACTTCACTAACTTCGATCCT
CGTGGCCTCCTTCCTGAATCCCTGGATTACTGGACCTACCCAGGCTCACTGACCACCCCT
CCTCTTCTGGAATGTGTGACCTGGATTGTGCTCAAGGAACCCATCAGCGTCAGCAGCGAG
CAGGTGTTGAAATTCCGTAAACTTAACTTCAATGGGGAGGGTGAACCCGAAGAACTGATG
GTGGACAACTGGCGCCCAGCTCAGCCACTGAAGAACAGGCAAATCAAAGCTTCCTTCAAA
TAA

Clone variation with respect to NM_000067.2
562 t=>c

View online »

5' Read Nucleotide Sequence:

>OriGene 5' read for NM_000067 unedited
TTTTGTAATACGACTCACTATAGGGCGGCCGCGAATTCGGCACGAGGGCCCAAGCCGCCG
CCGCCAGATCGGTGCCGATTCCTGCCCTGCCCCGACCGCCAGCGCGACCATGTCCCATCA
CTGGGGGTACGGCAAACACAACGGACCTGAGCACTGGCATAAGGACTTCCCCATTGCCAA
GGGAGAGCGCCAGTCCCCTGTTGACATCGACACTCATACAGCCAAGTATGACCCTTCCCT
GAAGCCCCTGTCTGTTTCCTATGATCAAGCAACTTCCCTGAGGATCCTCAACAATGGTCA
TGCTTTCAACGTGGAGTTTGATGACTCTCATGACAAAGCAGTGCTCAAGGGAGGACCCCT
GGATGGCACTTACAGATTGATTCAGTTTCACTTTCACTGGGGTTCACTTGATGGACAAGG
TTCAGAGCATACTGTGGATAAAAAGAAATATGCTGCAGAACTTCACTTGGTTCACTGGAA
CACCAAATATGGGGATTTTGGGAAAGCTGTGCAGCAACCTGATGGACTGGCCGTTCTAAG
TATTTTTTTGAAGGTTGGCAGCGCTAAACCGGGCCTTCAGAAAGTTGTTGATGTGCTGGA
TTCCATTAAAACAAAGGGCAAGAGTGCTGACTTCACTAACTTCGATCCTCGAGGCCTCCT
TACTGAATCCCTGGATTACTGGACCTACCCAGGCTCACTGACCACCCCTCCTCTTCTGGA
ATGTGTGACCTGGATTGTGCTCAAGGAACCCATCAGCGTCAGCAGCGAGCAGGTGTTGAA
ATTCCCTAAACTTAACTCAATGGGGAGGGTGAACCCGAAGACTGATGTGGGACAACTGCG
CCCAGCTCANCCACTGAAGACAAGCAAATCAAAGCTTCCTTAAATAAGATGGCCCCTAGT
CTGTAN

3' Read Nucleotide Sequence:

>OriGene 3' read for NM_000067 unedited
ACCGCGGCCGCTATCTAGNATCGAGTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTTT
TTTTTTTTTTTTTTTTTTTTTTTTTTTAAAATTCTGAATTTTTTTAAAAAATTTTTTTAAA
ATCCAATTTTTTTTAAGTTTTGATTTTTTGGCTGAAGGGAAATATACCCTGTTTCACAAC
TTTAATTTTAACAATTTTTACAAAAAAAACTTCTTTTTTTTCTTTGGAATTCAAAAGGCT
TTAAATTCCCCCAAAATTCATTTTTAAAAAAACTTTGCTTTAAAAATAAAAAAATTTTTA
AAGGTTTTTTTTAATAAAACATCTTGAAATCATGAACATTTTTTTTTTTGGGGTTCCCTT
ACATAAAATCATGACTTTTTTCCCCGGTTTGCCTTAACTAACCCAATTTATTTTGGGCTT
TGGATTTGCCCCCAACCATTTTACTTTCCTTTGTTTTAAAAACCCCTTTTTAATCAACAA
TTGGGAGGGCTCATCACCCTACATGCTGGGAACAAAGGCAAGGGCCCTTATTCTTATTTC
TTAACCCAAATTCGGGGGTCCAAAAAAACTCCCCCCCTAAACAAAGCCCCCCCCCCCCCC
CCCAGTTGGGGCAAACATGACAATGGGGCTAACCTTCCATTTTATTAAAAAGCCTTTCAA
GGAAAAAATGAAGGGGCTTAAAAACTTAACCCAAAGCCCCCCGGGGCCAAATCACCAAGG
GAAATCTGGGCTTACCTAAAGGGAAACCCCCGAAAATTCTTATTTGGATACCGACTATGG
GCACATTTTATTTGAAGGAACCTGGATTTGCCTGTTNCTTCAGGGCTGACCTGGCCGCAG
TTTGTCACAATAATTTCTCGGGTCCCCCTCCCTTGAATTAAGTTACGGATTTCACCCTGC
TCCTGTGACCTGAAGGTCCCTGACCCATCAGG

Restriction Sites: NotI-NotI

ACCN: NM_000067

Insert Size: 1750 bp

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 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
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_000067.1, NP_000058.1
RefSeq Size:	1551 bp
RefSeq ORF:	783 bp
Locus ID:	760
UniProt ID:	P00918
Cytogenetics:	8q21.2
Domains:	carb_anhydrase
Protein Families:	Druggable Genome
Protein Pathways:	Nitrogen metabolism
Gene Summary:	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] Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).