

## Product datasheet for **RG236162**

### Carbonic Anhydrase II (CA2) (NM\_001293675) Human Tagged ORF Clone

#### Product data:

**Product Type:** Expression Plasmids  
**Product Name:** Carbonic Anhydrase II (CA2) (NM\_001293675) Human Tagged ORF Clone  
**Tag:** TurboGFP  
**Symbol:** CA2  
**Synonyms:** CA-II; CAC; CAII; Car2; HEL-76; HEL-S-282  
**Mammalian Cell Selection:** Neomycin  
**Vector:** pCMV6-AC-GFP (PS100010)  
**E. coli Selection:** Ampicillin (100 ug/mL)  
**ORF Nucleotide Sequence:** >RG236162 representing NM\_001293675.  
Blue=ORF Red=Cloning site Green=Tag(s)

```
GCTCGTTTAGTGAACCGTCAGAATTTGTAAACGACTACTATAGGGCGCCGGGAATTCGTCGACTG
GATCCGGTACCGAGGAGATCTGCCGCCGCGATCGCC
ATGGTCATGCTTCAACGTGGAGTTTGATGACTCTCAGGACAAAGCAGCTTCACTTGGTTCCTGGAAC
ACCAAATATGGGGATTTGGGAAAGCTGTGCAGCAACCTGATGGACTGGCCGTTCTAGGTATTTTTTTG
AAGGTTGGCAGCGCTAAACCGGGCCTTCAGAAAGTTGTTGATGTGCTGGATTCCATTAACAAGGGC
AAGAGTGTGACTTCACTAACTTCGATCCTCGTGGCCTCCTTCTGAATCCTGGATTACTGGACCTAC
CCAGGCTCACTGACCACCCCTCTTCTGGAATGTGTGACCTGGATTGTGCTCAAGGAACCCATCAGC
GTCAGCAGCGAGCAGGTGTTGAAATTCGTAACCTTAACTTCAATGGGGAGGGTGAACCCGAAGAAGCTG
ATGGTGGACAACCTGGCGCCAGCTCAGCCACTGAAGAACAGGCAAATCAAAGCTTCTTCAA
ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAAAC
```

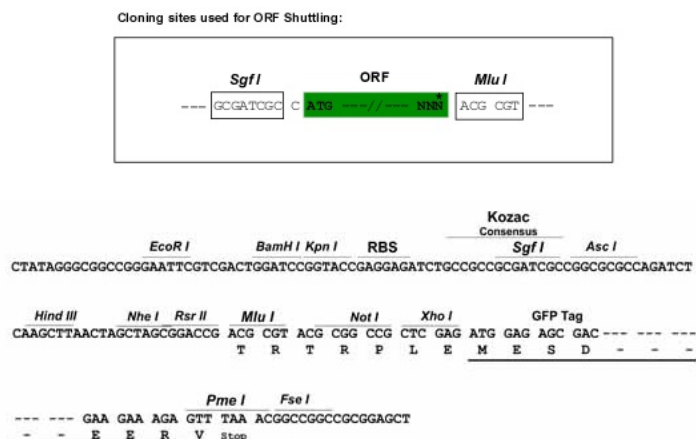
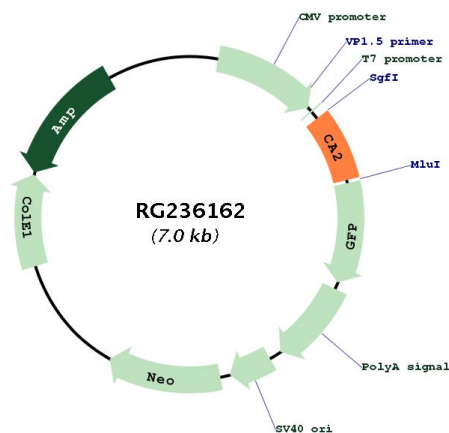
**Protein Sequence:** >Peptide sequence encoded by RG236162  
Blue=ORF Red=Cloning site Green=Tag(s)

```
MVMLSTWLSMTLRTKQLHLVHWNTKYGDFGKAVQQPDGLAVLGIFLKVGSAPGLQKVVDVLDSEIKTKG
KSADFTNFDPRGLLPESLDYWTYPGSLTTPPLLECVTWIVLKEPISVSSEQVLKFRKLNFNNGEPEPEL
MVDNWRPAQPLKNRQIKASFK
TRTRPLEMESDESGLPAMEIECRITGTLNGVEFELVGGEGTPEQGRMTNKMSTKGALTFSPYLLSHV
MGYGFYHFGTYPYSGYENPFLHAINNGGYNTRIEKYEDGGVLHVSFSYRYEAGRVIGDFKVMGTGFPED
SVIFTDKIIRSNATVEHLHPMGDNDLDGSFTRTFSLRDGGYSSVVDSDHMFKSAIHPSILQNGGPMFA
FRRVEEDHSNTELGIVEYQHAFKTPDADAGEERV
```

**Restriction Sites:** SgfI-MluI



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**Cloning Scheme:**

**Plasmid Map:**


ACCN: NM\_001293675

ORF Size: 477 bp

OTI Disclaimer: 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 clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.

<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>RefSeq:</b>	<a href="#">NM_001293675.1</a> , <a href="#">NP_001280604.1</a>
<b>RefSeq Size:</b>	1547 bp
<b>RefSeq ORF:</b>	480 bp
<b>Locus ID:</b>	760
<b>Cytogenetics:</b>	8q21.2
<b>Protein Families:</b>	Druggable Genome
<b>Protein Pathways:</b>	Nitrogen metabolism
<b>MW:</b>	18.4 kDa
<b>Gene Summary:</b>	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]