

### Product datasheet for RC210228L4

# CA8 (NM\_004056) Human Tagged Lenti ORF Clone

#### **Product data:**

**Product Type:** Expression Plasmids

**Product Name:** CA8 (NM\_004056) Human Tagged Lenti ORF Clone

Tag: mGFP Symbol: CA8

Synonyms: CA-RP; CA-VIII; CALS; CAMRQ3; CARP

Mammalian Cell Puromycin

Selection:

**Vector:** pLenti-C-mGFP-P2A-Puro (PS100093)

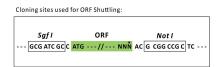
E. coli Selection: Chloramphenicol (34 ug/mL)

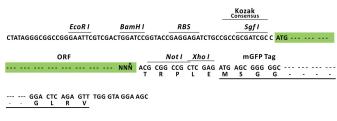
ORF Nucleotide The ORF insert of this clone is exactly the same as(RC210228).

Sequence:

**Restriction Sites:** Sgfl-Notl

**Cloning Scheme:** 





<sup>\*</sup> The last codon before the Stop codon of the ORF

**ACCN:** NM\_004056

ORF Size: 870 bp



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**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.

**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:** <u>NM 004056.4</u>

**RefSeq Size:** 2278 bp

RefSeq ORF: 873 bp

Locus ID: 767

UniProt ID: P35219

Cytogenetics: 8q12.1

**Domains:** carb anhydrase

**Protein Families:** Druggable Genome

**Protein Pathways:** Nitrogen metabolism

MW: 33 kDa

**Gene Summary:** The protein encoded by this gene was initially named CA-related protein because of sequence

similarity to other known carbonic anhydrase genes. However, the gene product lacks carbonic anhydrase activity (i.e., the reversible hydration of carbon dioxide). The gene product continues to carry a carbonic anhydrase designation based on clear sequence identity to other members of the carbonic anhydrase gene family. The absence of CA8 gene transcription in the cerebellum of the lurcher mutant in mice with a neurologic defect

suggests an important role for this acatalytic form. Mutations in this gene are associated with

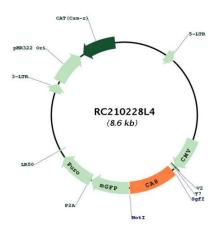
cerebellar ataxia, mental retardation, and dysequilibrium syndrome 3 (CMARQ3).

Polymorphisms in this gene are associated with osteoporosis, and overexpression of this gene in osteosarcoma cells suggests an oncogenic role. Alternative splicing results in multiple

transcript variants. [provided by RefSeq, Mar 2016]



## **Product images:**



Circular map for RC210228L4