

## Product datasheet for **RC210228L3V**

### CA8 (NM\_004056) Human Tagged ORF Clone Lentiviral Particle

#### Product data:

Product Type:	Lentiviral Particles
Product Name:	CA8 (NM_004056) Human Tagged ORF Clone Lentiviral Particle
Symbol:	CA8
Synonyms:	CA-RP; CA-VIII; CALS; CAMRQ3; CARP
Mammalian Cell Selection:	Puromycin
Vector:	pLenti-C-Myc-DDK-P2A-Puro (PS100092)
Tag:	Myc-DDK
ACCN:	NM_004056
ORF Size:	870 bp
ORF Nucleotide Sequence:	The ORF insert of this clone is exactly the same as(RC210228).
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. <a href="#">More info</a>
OTI Annotation:	This clone was engineered to express the complete ORF with an expression tag. Expression varies depending on the nature of the gene.
RefSeq:	<a href="#">NM_004056.4</a>
RefSeq Size:	2278 bp
RefSeq ORF:	873 bp
Locus ID:	767
UniProt ID:	<a href="#">P35219</a>
Cytogenetics:	8q12.1
Domains:	carb_anhydrase
Protein Families:	Druggable Genome


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**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]