OriGene Technologies, Inc.
9620 Medical Center Drive, Ste 200
Rockville, MD 20850, US
Phone: +1-888-267-4436
https://www.origene.com
techsupport@origene.com
EU: info-de@origene.com
CN: techsupport@origene.cn

Product datasheet for RG207575

CA7 (NM_001014435) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CA7 (NM_001014435) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CA7
Synonyms:	CA-VII; CAVII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG207575 representing NM_001014435
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGACCGGCCACCACGGCTGGGGCTACGGCCAGGACGACGGCCCCTCGCATTGGCACAAGCTGTATCCCA
TTGCCCAGGGAGATCGCCAATCACCCATCAATATCATCTCCAGCCAGGCTGTGTACTCTCCCAGCCTGCA
ACCACTGGAGCTTTCCTATGAGGCCTGCATGTCCCTCAGCATCACCAACAATGGCCACTCTGTCCAGGTA
GACTTCAATGACAGCGATGACCGAACCGTGGTGACTGGGGGCCCCCTGGAAGGGCCCTACCGCCTCAAGC
AGTTTCACTTCCACTGGGGCAAGAAGCACGATGTGGGTTCTGAGCACACGGTGGACGGCAAGTCCTTCCC
CAGCGAGCTGCATCTGGTTCACTGGAATGCCAAGAAGTACAGCACTTTTGGGGAGGCGGCCTCAGCACCT
GATGGCCTGGCTGTGGTTGGTGTTTTTTTGGAGACAGGAGACGAGCACCCCAGCATGAATCGTCTGACAG
ATGCGCTCTACATGGTCCGGTTCAAGGGCACCAAAGCCCAGTTCAGCTGCTTCAACCCCAAGTGCCTCCT
GCCTGCCAGCCGGCACTACTGGACCTACCCGGGCTCTCTGACGACTCCCCCACTCAGTGAGAGTGTCACC
TGGATTGTGCTCCGGGAGCCCATCTGCATCTCTGAAAGGCAGATGGGGAAGTTCCGGAGCCTGCTTTTTA
CCTCGGAGGACGATGAGAGGATCCACATGGTGAACAACTTCCGGCCACCACAGCCACTGAAGGGCCGCGT
GGTAAAGGCCTCCTTCCGGGCC

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

View online »

Protein Sequence:

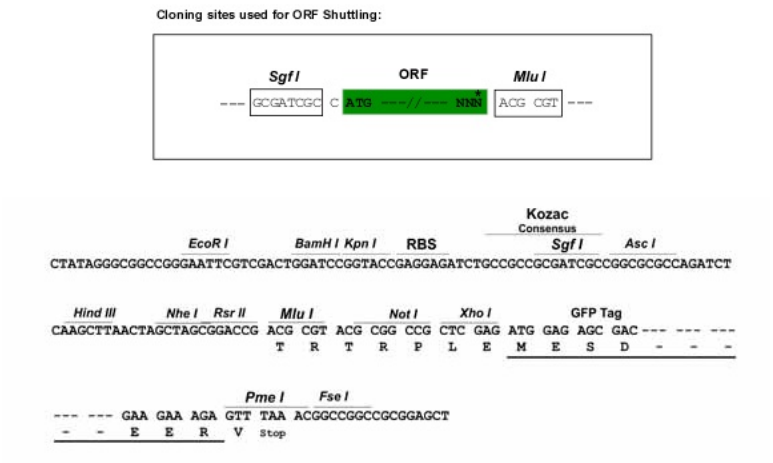
>RG207575 representing NM_001014435
Red=Cloning site Green=Tags(s)

MTGHHGWGYGQDDGPSHWHKLYPIAQGDRQSPINIISSQAVYSPSLQPLELSYEACMSLSITNNGHSVQV
DFNDSDDRTVVTGGPLEGPYRLKQFHFHWGKKHDVGSEHTVDGKSFPSELHLVHWNAKKYSTFGEAASAP
DGLAVVGVFLETGDEHPSMNRLTDALYMVRFKGTKAQFSCFNPKCLLPASRHYWTYPGSLTTPPLSESVT
WIVLREPICISERQMGKFRSLLFTSEDDERIHMVNNFRPPQPLKGRVVKASFRA

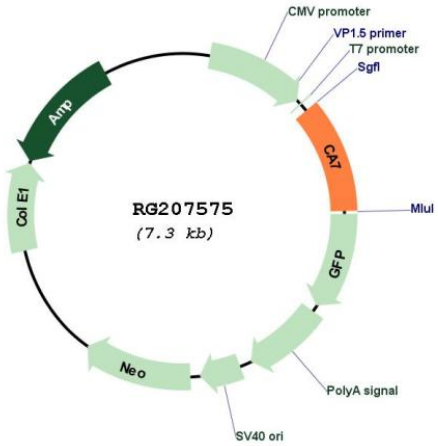
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001014435

ORF Size: 792 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.
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_001014435.1, NP_001014435.1
RefSeq Size:	1715 bp
RefSeq ORF:	627 bp
Locus ID:	766
UniProt ID:	P43166
Cytogenetics:	16q22.1
Protein Families:	Druggable Genome
Protein Pathways:	Nitrogen metabolism
Gene Summary:	Carbonic anhydrases 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. They show extensive diversity in tissue distribution and in their subcellular localization. The cytosolic protein encoded by this gene is predominantly expressed in the brain and contributes to bicarbonate driven GABAergic neuron excitation. Alternative splicing in the coding region results in multiple transcript variants encoding different isoforms. [provided by RefSeq, Aug 2018]