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Product datasheet for RC215024

CA7 (NM_005182) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CA7 (NM_005182) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	CA7
Synonyms:	CA-VII; CAVII
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
Cell Selection:	Neomycin
ORF Nucleotide Sequence:	>RC215024 representing NM_005182 Red=Cloning site Blue=ORF Green=Tags(s) TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC GCCGCGATCGCC ATGACCGGCCACCACGGCTGGGGCTACGGCCAGGACGACGGCCCCTCGCATTGGCACAAGCTGTATCCCA TTGCCCAGGGAGATCGCCAATCACCCATCAATATCATCTCCAGCCAGGCTGTGTACTCTCCCAGCCTGCA ACCACTGGAGCTTTCCTATGAGGCCTGCATGTCCCTCAGCATCACCAACAATGGCCACTCTGTCCAGGTA GACTTCAATGACAGCGATGACCGAACCGTGGTGACTGGGGGCCCCCTGGAAGGGCCCTACCGCCTCAAGC AGTTTCACTTCCACTGGGGCAAGAAGCACGATGTGGGTTCTGAGCACACGGTGGACGGCAAGTCCTTCCC CAGCGAGCTGCATCTGGTTCACTGGAATGCCAAGAAGTACAGCACTTTTGGGGAGGCGGCCTCAGCACCT GATGGCCTGGCTGTGGTTGGTGTTTTTTTGGAGACAGGAGACGAGCACCCCAGCATGAATCGTCTGACAG ATGCGCTCTACATGGTCCGGTTCAAGGGCACCAAAGCCCAGTTCAGCTGCTTCAACCCCAAGTGCCTCCT GCCTGCCAGCCGGCACTACTGGACCTACCCGGGCTCTCTGACGACTCCCCCACTCAGTGAGAGTGTCACC TGGATTGTGCTCCGGGAGCCCATCTGCATCTCTGAAAGGCAGATGGGGAAGTTCCGGAGCCTGCTTTTTA CCTCGGAGGACGATGAGAGGATCCACATGGTGAACAACTTCCGGCCACCACAGCCACTGAAGGGCCGCGT GGTAAAGGCCTCCTTCCGGGCC ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT ACAAGGATGACGACGATAAGGTTTAA

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Protein Sequence:

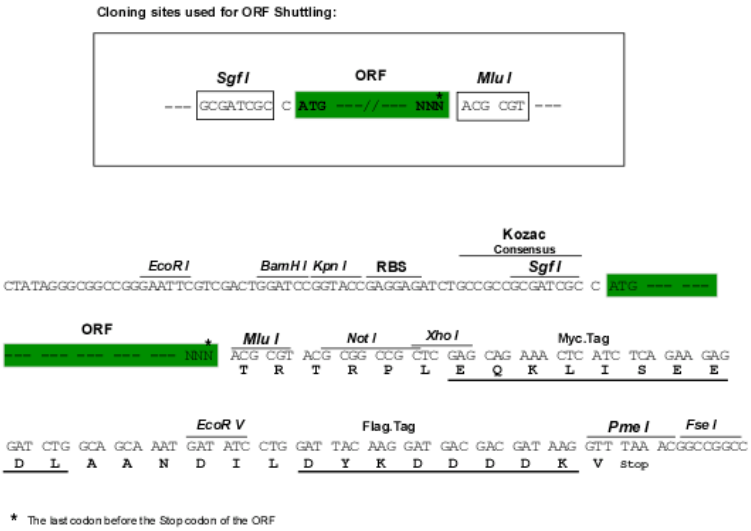
>RC215024 representing NM_005182
Red=Cloning site Green=Tags(s)

MTGHHGWGYGQDDGPSHWHKLYPIAQGDRQSPINIISSQAVYSPSLQPLELSYEACMSLSITNNGHSVQV
DFNDSDDRTVVTGGPLEGPYRLKQFHFHWGKKHDVGSEHTVDGKSFPSELHLVHWNAKKYSTFGEAASAP
DGLAVVGVFLETGDEHPSMNRLTDALYMVRFKGTKAQFSCFNPKCLLPASRHYWTYPGSLTTPPLSESVT
WIVLREPICISERQMGKFRSLLFTSEDDERIHMVNNFRPPQPLKGRVVKASFRA

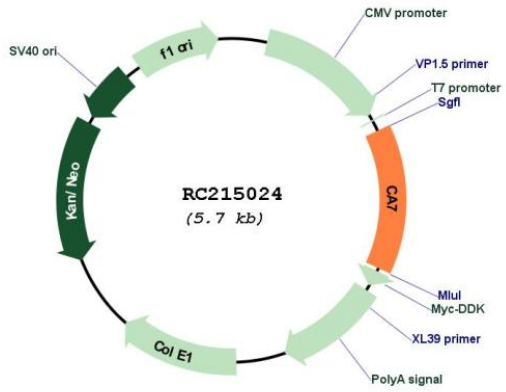
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_005182

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_005182.3
RefSeq Size:	1563 bp
RefSeq ORF:	795 bp
Locus ID:	766
UniProt ID:	P43166
Cytogenetics:	16q22.1
Protein Families:	Druggable Genome
Protein Pathways:	Nitrogen metabolism
MW:	29.5 kDa
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]