

Product datasheet for **RG214555**

CA5A (NM_001739) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	CA5A (NM_001739) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CA5A
Synonyms:	CA5; CA5AD; CAV; CAVA; GS1-21A4.1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG214555 representing NM_001739 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTGGGGAGGAACACTTGAAGACCTCAGCTTCTCCTTCTTGGTTGAGCAGATGTGGGCCCTCTCT
GGAGTCGTTTCGATGAGGCCAGGGCGATGGTGTTCAGCGTTCCTGTGCATGGCAAACAGCAATAACAC
TTTGCACCCACTCTGGACGGTCCCGGTCTCCGTGCCAGGGGGCACCCGGCAGTCTCCTATTAACATCCAG
TGGAGGGACAGCGTCTATGACCCCCAGCTGAAGCCACTCAGGGTCTCCTATGAAGCGGCATCCTGCCTGT
ACATCTGGAACACTGGCTACCTTCCAGGTGGAATTTGACGATGCCACCGAGGCATCAGGAATTAGTGG
TGGGCCCTTGGAAAACACTACAGACTGAAGCAATTTCACTTCCACTGGGGAGCAGTGAACGAGGGGGGC
TCAGAGCACACAGTGGACGGCCACGCGTACCCCGCAGAGCTGCATTTAGTTCACTGGAATTCGTGAAAT
ACCAAAATTACAAGGAAGCTGTCGTGGGAGAGAATGGTTTGGCTGTGATAGGCGTGTGTTTAAAGCTCGG
GGCCCATCATCAGACGCTGCAGAGGCTGGTGGACATCTTGCCGGAATAAAACATAAGGACGCGCGGGCG
GCCATGCGCCCTTCGACCCCTCCACTCTGCTGCCACCTGCTGGGATTACTGGACCTACGCGGGCTCGC
TCACCACCCCGCGCTGACCGAGTCGGTACCTGGATCATCCAGAAGGAGCCCGTTGAAGTGGCCCAAG
CCAGCTCTCTGCATTTCTACTCTCCTGTTTTCTGCACTTGGTGAAGAGGAGAAGATGATGGTGAACAAC
TATCGCCCACTTCAACCTTGATGAACCGAAGGTCTGGGCGTCTTCCAGGCCACTAATGAGGGCACAA
GGTCC

AG**CGGACCG**ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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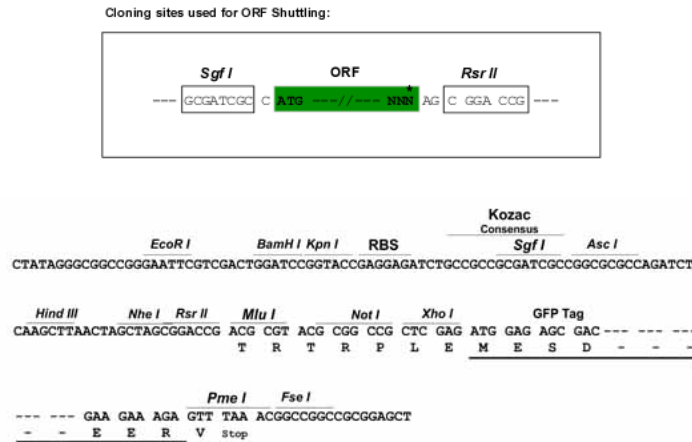
Protein Sequence: >RG214555 representing NM_001739
 Red=Cloning site Green=Tags(s)

MLGRNTWKTSAFSFLVEQMWAPLWSRSMRPGRWCSQRSCAWQTSNNTLHPLWTVPVSVPGGTRQSPINIQ
 WRDSVYDPQLKPLRVSYEASCLYIWNITGYLFQVEFDDATEASGISGGPLENHYRLKQFHFWGAVNEGG
 SEHTVDGHAYPAELHLVHWNSVKYQNYKEAVVGENGLAVIGVFLKLGAAHQTLQRLVDILPEIKHKDARA
 AMRPFDPSTLLPTCWDYWTYAGSLTTPPLTESVTWIIQKEPVEVAPSQLSAFRTLLFSALGEEKMMVNN
 YRPLQLMNRKVVASFQATNEGTRS

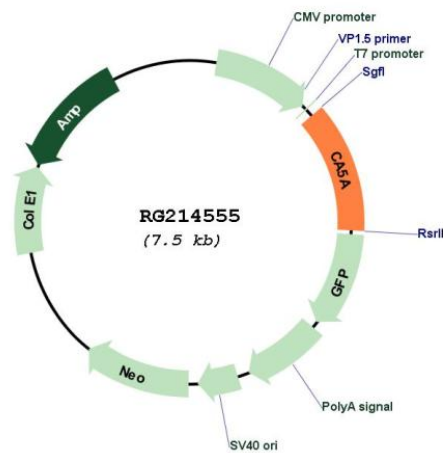
SGPTRRRLE - GFP Tag - V

Restriction Sites: SgfI-RsrII

Cloning Scheme:



Plasmid Map:



ACCN: NM_001739

ORF Size: 915 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:	<ol style="list-style-type: none">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_001739.2
RefSeq Size:	1084 bp
RefSeq ORF:	918 bp
Locus ID:	763
UniProt ID:	P35218
Cytogenetics:	16q24.2
Protein Families:	Druggable Genome
Protein Pathways:	Nitrogen metabolism
Gene Summary:	Carbonic anhydrases (CAs) 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. CA VA is localized in the mitochondria and expressed primarily in the liver. It may play an important role in ureagenesis and gluconeogenesis. CA5A gene maps to chromosome 16q24.3 and an unprocessed pseudogene has been assigned to 16p12-p11.2. [provided by RefSeq, Jul 2008]