

Product datasheet for **RG206503**

Carbonic Anhydrase XIV (CA14) (NM_012113) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carbonic Anhydrase XIV (CA14) (NM_012113) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Carbonic Anhydrase XIV
Synonyms:	CAXiV
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG206503 representing NM_012113 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGTTGTTCTCCGCCCTCTGCTGGAGGTGATTTGGATCCTGGCTGCAGATGGGGTCAACACTGGACGT
ATGAGGGCCACATGGTCAGGACCATTGGCCAGCCTCTTACCCTGAGTGTGAAACAATGCCAGTCGCC
CATCGATATTCAGACAGACAGTGTGACATTTGACCCTGATTTGCCTGCTCTGCAGCCCCACGGATATGAC
CAGCCTGGCACCAGCCTTTGGACCTGCACAACAATGGCCACACAGTCAACTCTCTGCCCTTACCC
TGTATCTGGTGGACTTCCCCGAAAATATGTAGCTGCCAGCTCCACCTGCACTGGGGTCAAGAAAGGATC
CCCAGGGGGTCAAGAACACCAGATCAACAGTGAAGCCACATTTGCAGAGCTCCACATTGTACATTATGAC
TCTGATTCCTATGACAGCTTGTAGTGAGGCTGCTGAGAGGCCTCAGGGCCTGGCTGTCTGGGCATCCTAA
TTGAGGTGGGTGAGACTAAGAATATAGCTTATGAACACATTCTGAGTCACTTGCATGAAGTCAGGCATAA
AGATCAGAAGACCTCAGTGCCTCCCTTCAACCTAAGAGAGCTGCTCCCCAACAGCTGGGGCAGTACTTC
CGCTACAATGGCTCGCTCACAACCTCCCTTGTCTACCAGAGTGTGCTCTGGACAGTTTTTTATAGAAGGT
CCCAGATTTCAATGGAACAGCTGGAAAAGCTTCAGGGGACATTGTTCTCCACAGAAGAGGAGCCCTCAA
GCTTCTGGTACAGAACTACCGAGCCCTCAGCCTCTCAATCAGCGCATGGTCTTTGCTTCTTTTATCCAA
GCAGGATCCTCGTATACCACAGGTGAAATGCTGAGTCTAGGTGTAGGAATCTTGGTTGGCTGTCTTGCC
TTCTCTGGCTGTTTATTTTATTGCTAGAAAGATTTCGGAAGAAGAGGCTGGAAAACCGAAAGAGTGTGGT
CTTCACCTCAGCACAAGCCACGACTGAGGCA

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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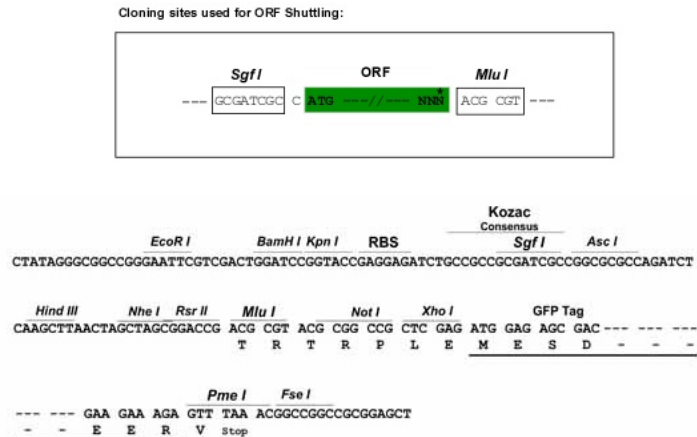
Protein Sequence: >RG206503 representing NM_012113
 Red=Cloning site Green=Tags(s)

MLFSALLLEVIWILAADGGQHWTYEGPHGQDHPASYPECGNNAQSPIDIQTDSVTFDPLPALQPHGYD
 QPGTEPLDLHNNGHTVQLSLPSTLYLGGGLPRKYVAAQLHLHWGQKGGSPGGSEHQINSEATFAELHIVHYD
 SDSYDSLSEAAERPQGLAVLGILIEVGETKNIAYEHILSHLHEVRHKDQKTSVPPFNLRELLPKQLGQYF
 RYNGSLTTPPCYQSVLWTVFYRRSQISMEQLEKLQGLTFSTEEEPSKLLVQNYRALQPLNQRMVFAAFIQ
 AGSSYTTGEMLSLGVGILVGCLLLLLAVYFIARKIRKKRLENRKSVVFTSAQATTEA

TRTRPLE - GFP Tag - V

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_012113

ORF Size: 1011 bp

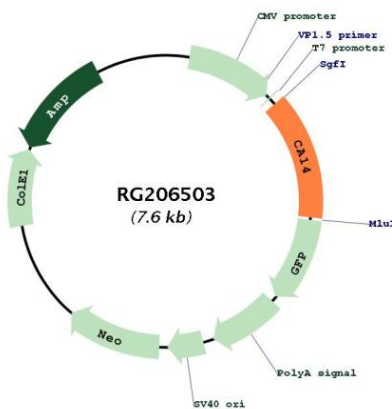
OTI Disclaimer: The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially 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_012113.3
RefSeq Size:	1757 bp
RefSeq ORF:	1014 bp
Locus ID:	23632
UniProt ID:	Q9ULX7
Cytogenetics:	1q21.2
Protein Families:	Druggable Genome, Transmembrane
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 XIV is predicted to be a type I membrane protein and shares highest sequence similarity with the other transmembrane CA isoform, CA XII; however, they have different patterns of tissue-specific expression and thus may play different physiologic roles. [provided by RefSeq, Jul 2008]

Product images:



Circular map for RG206503