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Product datasheet for RG212539

Carbonic anhydrase X (CA10) (NM_001082534) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carbonic anhydrase X (CA10) (NM_001082534) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	CA10
Synonyms:	CA-RPX; CARPX; HUCEP-15
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)

ORF Nucleotide Sequence:

>RG212539 representing NM_001082534
Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCCGCGATCGCC

ATGGAAATAGTCTGGGAGGTGCTTTTTCTTCTTCAAGCCAATTTCATCGTCTGCATATCAGCTCAACAGA
ATTCACCAAAAATCCATGAAGGCTGGTGGGCATACAAGGAGGTGGTCCAGGGAAGCTTTGTTCCAGTTCC
TTCTTTCTGGGGATTGGTGAACTCAGCTTGGAATCTTTGCTCTGTGGGGAAACGGCAGTCGCCAGTCAAC
ATAGAGACCAGTCACATGATCTTCGACCCCTTTCTGACACCTCTTCGCATCAACACGGGGGGCAGGAAGG
TCAGTGGGACCATGTACAACACTGGAAGACACGTATCCCTTCGCCTGGACAAGGAGCACTTGGTCAACAT
ATCTGGAGGGCCCATGACATACAGCCACCGGCTGGAGGAGATCCGACTACACTTTGGGAGTGAGGACAGC
CAAGGGTCGGAGCACCTCCTCAATGGACAGGCCTTCTCTGGGGAGGTGCAGCTCATCCACTATAACCATG
AGCTATATACGAATGTCACAGAAGCTGCAAAGAGTCCAAATGGATTGGTGGTAGTTTCTATATTTATAAA
AGTTTCTGATTCATCAAACCCATTTCTTAATCGAATGCTCAACAGAGATACTATCACAAGAATAACATAT
AAAAATGATGCATATTTACTACAGGGGCTTAATATAGAGGAACTATATCCAGAGACCTCTAGTTTCATCA
CTTACGATGGGTCGATGACTATCCCACCCTGCTATGAGACAGCAAGTTGGATCATAATGAACAAACCTGT
CTATATAACCAGGATGCAGATGCATTCCTTGCGCCTGCTCAGCCAGAACCAGCCATCTCAGATCTTTCTG
AGCATGAGTGACAACTTCAGGCCTGTCCAGCCACTCAACAACCGCTGCATCCGCACCAATATCAACTTCA
GTTTACAGGGGAAGGACTGTCCAAACAACCGAGCCCAGAAGCTTCAGTATAGAGTAAATGAATGGCTCCT
CAAG

ACGCGTACGCGGCCGCTCGAG - GFP Tag - GTTTAA

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Protein Sequence:

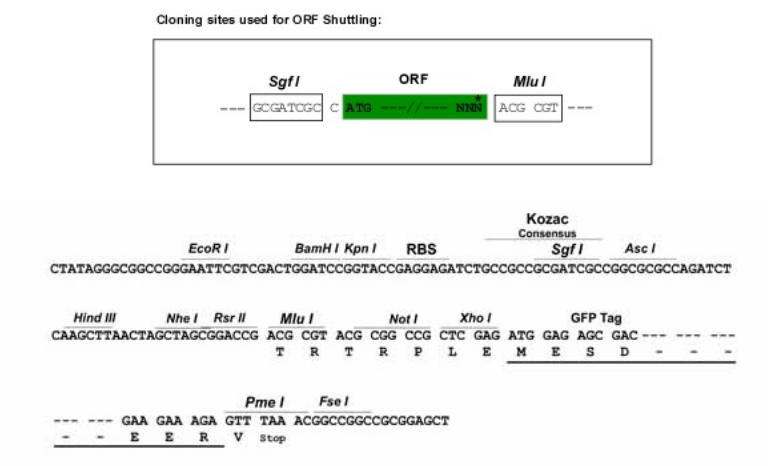
>RG212539 representing NM_001082534
Red=Cloning site Green=Tags(s)

MEIVWEVLFLLQANFIVCISAQQNSPKIHEGWWAYKEVVQGSFVPVPSFWGLVNSAWNLCSVGKRQSPVN
IETSHMIFDPFLTPLRINTGGRKVSGTMYNTGRHVSLRLDKEHLVNISGGPMTYSHRLEEIRLHFGSEDS
QGSEHLLNGQAFSGEVQLIHYNHELYTNVTEAAKSPNGLVVVSIFIKVSDSSNPFLNRMLNRDTITRITY
KNDAYLLQGLNIEELYPETSSFITYDGSMTIPPCYETASWIIMNKPVYITRMQMHSLRLLSQNQPSQIFL
SMSDNFRPVQPLNNRCIRTNINFSLQGKDCPNNRAQKLQYRVNEWLLK

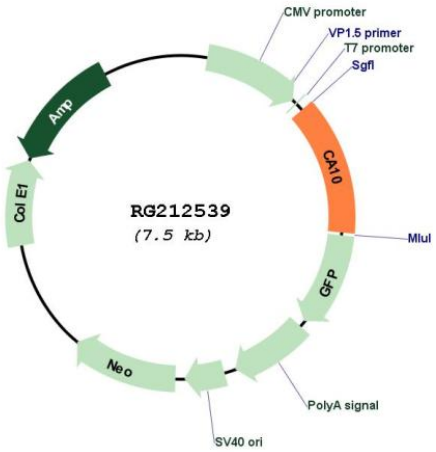
TRTRPLE – GFP Tag – V

Restriction Sites: SgfI-MluI

Cloning Scheme:



Plasmid Map:



ACCN: NM_001082534

ORF Size: 984 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_001082534.1, NP_001076003.1
RefSeq Size:	2951 bp
RefSeq ORF:	987 bp
Locus ID:	56934
UniProt ID:	Q9NS85
Cytogenetics:	17q21.33-q22
Protein Families:	Druggable Genome
Gene Summary:	This gene encodes a protein that belongs to the carbonic anhydrase family of zinc metalloenzymes, which catalyze the reversible hydration of carbon dioxide in various biological processes. The protein encoded by this gene is an acatalytic member of the alpha-carbonic anhydrase subgroup, and it is thought to play a role in the central nervous system, especially in brain development. Multiple transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]