

Product datasheet for RC209723

Carbonic anhydrase X (CA10) (NM_001082533) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carbonic anhydrase X (CA10) (NM_001082533) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Carbonic anhydrase X
Synonyms:	CA-RPX; CARPX; HUCEP-15
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC209723 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGGAAATAGTCTGGGAGGTGCTTTTTCTTCTTCAAGCCAATTTTCATCGTCTGCATATCAGCTCAACAGA
ATTCACCAAAAATCCATGAAGGCTGGTGGGCATACAAGGAGGTGGTCCAGGGAAGCTTTGTTCCAGTTCC
TTCTTTCTGGGGATTGGTGAACCTCAGCTTGAATCTTTGCTCTGTGGGAAACGGCAGTCGCCAGTCAAC
ATAGAGACCAGTCACATGATCTTCGACCCCTTTCTGACACCTCTTCGCATCAACACGGGGGCAGGAAGG
TCAGTGGGACCATGTACAACACTGGAAGACACGTATCCCTTCGCCTGGACAAGGAGCACTTGGTCAACAT
ATCTGGAGGGCCCATGACATACAGCCACCGGCTGGAGGAGATCCGACTACACTTTGGGAGTGAGGACAGC
CAAGGGTCGGAGCACCTCCTCAATGGACAGGCCTTCTCTGGGGAGGTGCAGCTCATCCACTATAACCATG
AGCTATATACGAATGTCACAGAAGCTGCAAGAGTCCAAATGGATTGGTGGTAGTTTCTATATTTATAAA
AGTTTCTGATTCATCAAACCCATTTCTTAATCGAATGCTCAACAGAGATACTATCACAAGAATAACATAT
AAAAATGATGCATATTTACTACAGGGGCTTAATATAGAGGAACTATCCAGAGACCTCTAGTTTCATCA
CTTACGATGGGTCGATGACTATCCACCCCTGCTATGAGACAGCAAGTTGGATCATAATGAACAAACCTGT
CTATATAACCAGGATGCAGATGCATTCTTGCCTGCTCAGCCAGAACCAGCCATCTCAGATCTTTCTG
AGCATGAGTGACAACCTCAGGCCTGTCCAGCCACTCAACAACCGCTGCATCCGCACCAATATCAACTTCA
GTTTACAGGGGAAGGACTGTCAAACAACCGAGCCAGAAGCTTCAGTATAGAGTAAATGAATGGCTCCT
CAAG

ACGCGTACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC209723 protein sequence
Red=Cloning site Green=Tags(s)

MEIVWEVLFLLQANFIVCISAQQNSPKIHEGWAYKEVVQGSFVVPVPSFWGLVNSAWNLCVSGKRQSPVN
 IETSHMIFDPFL TPLRINTGGRKVS GMTMYNTGRHVSLRLDKEHLVNISGGPMTYSHRLEEIRLHFGSEDS
 QGSEHLLNGQAFSGEVQLIHYNHELVTNVTEAAKSPNGLVVVSIFIKVSDSSNPFLNRMNLNRDITRITY
 KNDAYLLQGLNIEELYPETSSFITYDGSMTIPPCYETASWII MNKPVYITRMQMHSRLRLLSQNQPSQIFL
 SMSDNFRFPVQPLNNRCIRTNINFSLQGDPCPNRAQKLQYRVNEWLLK

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6530_a07.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_001082533

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_001082533.1](#), [NP_001076002.1](#)

RefSeq Size: 3386 bp

RefSeq ORF: 987 bp

Locus ID: 56934

UniProt ID: [Q9NS85](#)

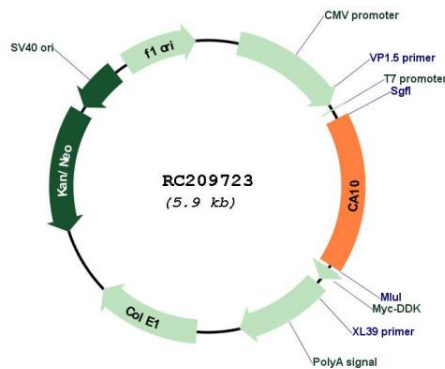
Cytogenetics: 17q21.33-q22

Protein Families: Druggable Genome

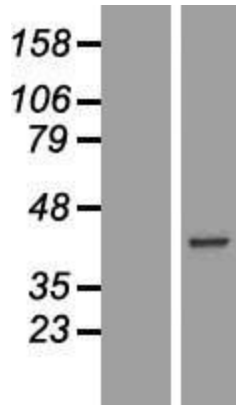
MW: 37.6 kDa

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]

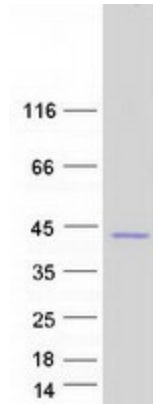
Product images:



Circular map for RC209723



Western blot validation of overexpression lysate (Cat# [LY412601]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with [RC213425] using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CA10 protein (Cat# [TP309723]). The protein was produced from HEK293T cells transfected with CA10 cDNA clone (Cat# RC209723) using MegaTran 2.0 (Cat# [TT210002]).