

## Product datasheet for RC202720

### Carboxypeptidase A (CPA1) (NM\_001868) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Carboxypeptidase A (CPA1) (NM_001868) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Carboxypeptidase A
Synonyms:	CPA
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202720 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGCGGGGGTTGCTGGTGTGAGTGTCTGTTGGGGGCTGTCTTTGGCAAGGAGGACTTTGTGGGGCATC  
AGGTGCTCCGAATCTCTGTAGCCGATGAGGCCAGGTACAGAAGGTGAAGGAGCTGGAGGACCTGGAGCA  
CCTGCAGCTGGACTTCTGGCGGGGCCCTGCCACCCTGGCTCCCCATCGACGTCGAGTCCGACTGCCCTCCCC  
AGCATCCAGGCGGTCAAGATCTTCTGGAGTCCCACGGCATCAGCTATGAGACCATGATCGAGGACGTGC  
AGTCGCTGCTGGACGAGGAGCAGGAGCAGATGTTCCGCTTCCGGTCCCGGGCGCGCTCCACCGACTTT  
TAACTACGCCACCTACCACACCTGGAGGAGATCTATGACTTCCTGGACCTGCTGGTGGCGGAGAACCCG  
CACCTTGTGACGAAGATCCAGATTGGCAACACCTATGAAGGGCGTCCCATTACGTGCTGAAGTTGACGA  
CGGGGGGCGAGTAAGCGTCCAGCCATCTGGATCGACACGGGCATCCATTCCCGGGAGTGGGTACCCAGGC  
CAGTGGGGTCTGGTTTGCAAAGAAGATCACTCAAGACTACGGGCAGGATGCAGCTTTACCGCCATTCTC  
GACACCTTGGACATCTTCTGGAGATCGTCACCAACCCTGATGGCTTTCCTTACGCACAGCACGAATC  
GCATGTGGCGCAAGACTCGGTCCACACAGCAGGCTCCCTCTGTATTGGCGTGGACCCCAACAGGAACTG  
GGACGCTGGCTTTGGGTGTCCGGAGCCAGCAGTAACCCCTGCTCGGAGACTTACCGCGGCAAGTTTGGC  
AATCCGAAGTGGAGGTCAAGTCCATTGTAGACTTTGTGAAGACCATGGGAACATCAAGGCCTTCATCT  
CCATCCACAGCTACTCCAGCTCCTCATGTATCCCTATGGCTACAAAACAGAACCAGTCCCTGACCAGGA  
TGAGCTGGATCAGCTTCCAAAGGCTGCTGTGACAGCCCTGGCCTCTCTACGGGACCAAGTTCAACTAT  
GGCAGCATCATCAAGGCAATTTATCAAGCCAGTGAAGCACTATTGACTGGACCTACAGCCAGGGCATCA  
AGTACTCCTTACCTTCGAGCTCCGGGACACTGGGCGCTATGGCTTCTGCTGCCAGCCTCCAGATCAT  
CCCCACAGCCAAGGAGACGTGGCTGGCGCTTCTGACCATCATGGAGCACACCCTGAATCACCCCTAC

**ACGGT**ACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
ACAAGGATGACGACGATAAGGTTTAA



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**Protein Sequence:** >RC202720 protein sequence  
Red=Cloning site Green=Tags(s)

MRGLLVLSVLLGAVFGKEDFVGHQVLRISVADEAQVQKVELEDLEHLQLDFWRGPAHPGSPIDVRVPPF  
 SIQAVKIFLESHGISYETMIEDVQSLLEEQEQMFAFRSRARSTDTFNATYHTLEEIYDFLDLLVAENP  
 HLVSKIQIGNTYEGRPIYVLKFTGGSKRPAIWIDTGIHSREWVTQASGVWFVAKKITQDYGQDAAF  
 DTLDIFLEIVTNPDPGFAFTHSTNRMWRKTRSHTAGSLCIGVDPNRNWDAGFGLSGASSNPCSETYRKF  
 NSEVEVKSIYDFVKDHGNKAFISHSYSQLLMYPYGYKTEPVPDQDELQLSKAAVTALASLYGTFKFN  
 GSIKAIYQASGSTIDWTYSQGIKYSFTFELRDTGRYGFLLPASQIIPTAKETWLLALLTMEHTLNHPY

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6578\\_e02.zip](https://cdn.origene.com/chromatograms/mk6578_e02.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001868

**ORF Size:** 1257 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\\_001868.4](#)

**RefSeq Size:** 1445 bp

**RefSeq ORF:** 1260 bp

**Locus ID:** 1357

**UniProt ID:** [P15085](#)

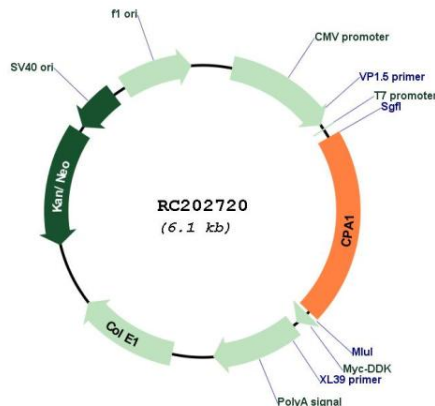
**Cytogenetics:** 7q32.2

**Protein Families:** Druggable Genome, ES Cell Differentiation/IPS, Protease, Secreted Protein

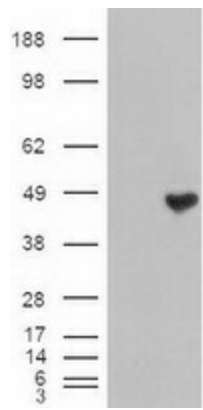
**MW:** 47.2 kDa

**Gene Summary:** This gene encodes a member of the carboxypeptidase A family of zinc metalloproteases. This enzyme is produced in the pancreas and preferentially cleaves C-terminal branched-chain and aromatic amino acids from dietary proteins. This gene and several family members are present in a gene cluster on chromosome 7. Mutations in this gene may be linked to chronic pancreatitis, while elevated protein levels may be associated with pancreatic cancer. [provided by RefSeq, Jan 2015]

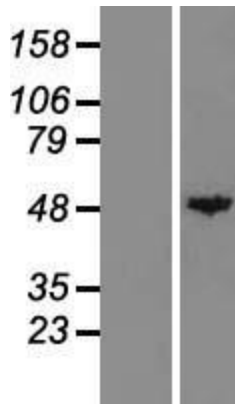
## Product images:



Circular map for RC202720



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CPA1 (Cat# RC202720, Right lane) cDNA for 48 hrs and lysed. Equivalent amounts of cell lysates (5 ug per lane) were separated by SDS-PAGE and immunoblotted with anti-CPA1 (Cat# [TA500053]). Positive lysates [LY419696] (100ug) and [LC419696] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419696]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202720 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CPA1 protein (Cat# [TP302720]). The protein was produced from HEK293T cells transfected with CPA1 cDNA clone (Cat# RC202720) using MegaTran 2.0 (Cat# [TT210002]).