

## Product datasheet for **RC208791**

### Carboxypeptidase H (CPE) (NM\_001873) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Carboxypeptidase H (CPE) (NM_001873) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Carboxypeptidase H
Synonyms:	CPH; IDDHH
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC208791 representing NM\_001873  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGGCCGGGCGAGGGGGCAGCGCGCTGCTGGCTCTGTGCGGGGCACTGGTGCCTGCGGGTGGCTCCTGG  
 GCGCCGAAGCCCAGGAGCCCGGGGCGCCCGCGGGGCATGAGGCGGCGCCGGCGCTGCAGCAAGAGGA  
 CGGCATCTCCTTCGAGTACCACCCTACCCGAGCTGCGCGAGGCGCTCGTGTCCGTGTGGCTGCAGTGC  
 ACCGCCATCAGCAGGATTTACACGGTGGGGCGCAGCTTCGAGGGCCGGGAGCTCCTGGTCATCGAGCTGT  
 CCGACAACCTGGCGTCCATGAGCCTGGTGAAGCTGAATTTAAATACATTGGGAATATGCATGGGAATGA  
 GGCTGTTGGACGAGAAGTCTCATTCTTGGCCAGTACCTATGCAACGAATACCAGAAGGGGAACGAG  
 ACAATTGTCAACCTGATCCACAGTACCCGATTACATCATGCCTTCCCTGAACCCAGATGGCTTTGAGA  
 AGGCAGCGTCTCAGCCTGGTGAAGTCAAGGACTGGTTTGTGGTGAAGCAATGCCAGGGAATAGATCT  
 GAACCGGAACCTTCCAGACCTGGATAGGATAGTGTACGTGAATGAGAAAGAAGGTGGTCCAATAATCAT  
 CTGTTGAAAAATATGAAGAAAATGTGGATCAAAACACAAAGCTTGCTCCTGAGACCAAGGCTGTCAATC  
 ATTGGATTATGGATATCCTTTTGTGCTTCTGCAATCTCCATGGAGGAGACCTTGTGGCAATTATCC  
 ATATGATGAGACGCGGAGTGGTAGTGCTCACGAATACAGCTCCTCCCGAGATGACGCCATTTTCAAAGC  
 TTGGCCCGGGCATACTCTTCTTCAACCCGGCCATGTCTGACCCCAATCGGCCACCATGTCGCAAGAATG  
 ATGATGACAGCAGCTTTGTAGATGGAACCAACCGTGGTGGTGGTACAGCGTACCTGGAGGGATGCA  
 AGACTTCAATTACCTTAGCAGCAACTGTTTTGAGATCACCGTGGAGCTTAGCTGTGAGAAGTTCCACCT  
 GAAGAGACTCTGAAGACCTACTGGGAGGATAACAAAACTCCCTCATTAGCTACCTTGAGCAGATACACC  
 GAGGAGTTAAAGGATTTGCCGAGACCTCAAGGTAACCAATTGCGAATGCCACCATCTCCGTGGGAAAG  
 AATAGACCACGATGTTACATCCGCAAAGGATGGTACTGGAGATTGCTTATACCTGGAAACTATAAA  
 CTTACAGCCTCAGCTCCAGGCTATCTGGCAATAACAAAGAAAGTGGCAGTTCTTACAGCCTGCTGCTG  
 GGGTTGATTTGAACTGGAGTCAATTTCTGAAAGGAAAGAAGGAGAGAAGGAAGAATTGATGGAATGGT  
 GAAATGATGTCAGAACTTTAAATTTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC208791 representing NM\_001873  
 Red=Cloning site Green=Tags(s)

MAGRGGALLALCGALACGWLLGAEAQEPGAPAAAGMRRRRRLQQEDGISFEYHRYPELREALVSVWLQC  
 TAISRIYTVGRSFEGRELLVIELSDNPGVHEPGEPEFKYIGNMHGNEAVGRELLIFLAQYLCNEYQKQNE  
 TIVNLIHSTRIHIMPSPNPDGFEKAASQPGELKDFVGRSNAQIDLNRFNFDLDRIVYVNEKEGGPNNH  
 LLKNMKIIVDQNTKLAPETKAVIHWIMDIPFVLSANLHGGLVANYPYDETRSGSAHEYSSPDDAIFQS  
 LARAYSSFNPAMSDPNRPPCRKNDSSSFVDGTTNGGAWYSVPGMQDFNYLSSNCFEITVELSCEKFPF  
 EETLKTYWEDNKNLSISYLEQIHRGVKGFVRDLQGNPIANATISVEGIDHDVTSAKDGDYWRLLIPGNYK  
 LTSAPGYLAITKKVAVPYSPAAGVDFELESFSEKKEEKEELMEWWMSETLNF

**TR**TRPLEQ**KL**ISEEDLAANDILDYKDDDDKV

**Restriction Sites:**

Sgfl-MluI

**Cloning Scheme:**


**ACCN:** NM\_001873

**ORF Size:** 1428 bp

**OTI Disclaimer:** Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at [custsupport@origene.com](mailto:custsupport@origene.com) or by calling 301.340.3188 option 3 for pricing and delivery.

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.

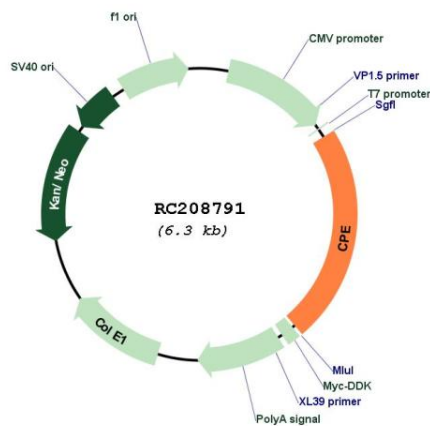
**Components:** The ORF clone is ion-exchange column purified and shipped in a 2D barcoded Matrix tube containing 10ug of transfection-ready, dried plasmid DNA (reconstitute with 100 ul of water).

- 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.

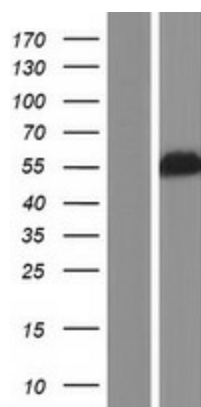
RefSeq:	<a href="#">NM_001873.4</a>
RefSeq Size:	2443 bp
RefSeq ORF:	1431 bp
Locus ID:	1363
UniProt ID:	<a href="#">P16870</a>
Cytogenetics:	4q32.3
Domains:	Zn_carbOpept
Protein Families:	Druggable Genome, Protease, Secreted Protein
Protein Pathways:	Type I diabetes mellitus
MW:	53.15 kDa

**Gene Summary:** This gene encodes a member of the M14 family of metalloproteinases. The encoded preproprotein is proteolytically processed to generate the mature peptidase. This peripheral membrane protein cleaves C-terminal amino acid residues and is involved in the biosynthesis of peptide hormones and neurotransmitters, including insulin. This protein may also function independently of its peptidase activity, as a neurotrophic factor that promotes neuronal survival, and as a sorting receptor that binds to regulated secretory pathway proteins, including prohormones. Mutations in this gene are implicated in type 2 diabetes. [provided by RefSeq, Nov 2015]

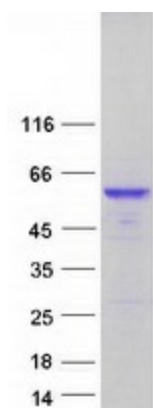
### Product images:



Circular map for RC208791



Western blot validation of overexpression lysate (Cat# [LY419701]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC208791 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CPE protein (Cat# [TP308791]). The protein was produced from HEK293T cells transfected with CPE cDNA clone (Cat# RC208791) using MegaTran 2.0 (Cat# [TT210002]).