

## Product datasheet for **RC202800**

### Carboxypeptidase B2 (CPB2) (NM\_001872) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Carboxypeptidase B2 (CPB2) (NM_001872) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Carboxypeptidase B2
Synonyms:	CPU; PCPB; TAFI
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide Sequence:**

>RC202800 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**GCGATCGCC**

ATGAAGCTTTGCAGCCTTGCAGTCTTGTACCCATTGTTCTTCTGTGAGCAGCATGTCTTCGCGTTTC  
 AGAGTGGCCAAGTTCTAGCTGCTTCTAGAACCTCTAGGCAAGTTCAAGTTCTACAGAATCTTACTAC  
 AACATATGAGATTGTTCTCTGGCAGCCGTAACAGCTGACCTTATTGTGAAGAAAAACAAGTCCATTTT  
 TTTGTAATGCATCTGATGTCGACAATGTGAAAGCCCATTTAAATGTGAGCGGAATTCATGCAGTGTCT  
 TGCTGGCAGACGTGGAAGATCTTATTCAACAGCAGATTTCCAACGACACAGTCAGCCCCGAGCCTCCGC  
 ATCGTACTATGAACAGTATCACTACTAAATGAAATCTATTCTTGGATAGAATTTATAACTGAGAGGCAT  
 CCTGATATGCTTACAAAAATCCACATTGGATCCTCATTTGAGAAGTACCCACTCTATGTTTTAAAGTTT  
 CTGGAAAAGAACAAGCAGCAAAAATGCCATATGGATTGACTGTGGAATCCATGCCAGAGAATGGATCTC  
 TCCTGCTTCTGCTTGTGGTTCATAGGCCATATAACTCAATTCTATGGGATAATAGGGCAATATACCAAT  
 CTCTGAGGCTTGTGGATTTCTATGTTATGCCGGTGGTTAATGTGGATGGTTATGACTACTCATGAAAA  
 AGAATCGAATGTGGAGAAAGAACCCTTCTTCTATGCGAACAATCATTGCATCGGAACAGACCTGAATAG  
 GAACCTTCTTCCAAACTGGTGTGAGGAAGGTGCATCCAGTTCCTCATGCTCGAAACCTACTGTGGA  
 CTTTATCTGAGTCAGAACAGAAAGTGAAGGCAGTGGCTAGTTTCTTGAGAAGAAATATCAACCAGATTA  
 AAGCATACATCAGCATGCATTCATACTCCAGCATATAGTGTTCATATTCCTATACACGAAGTAAAAG  
 CAAAGACCATGAGAACTGTCTCTAGTAGCCAGTGAAGCAGTTCGTGCTATTGAGAAAACAGTAAAAAT  
 ACCAGGTATACACATGGCCATGGCTCAGAAACCTTACCTAGCTCCTGGAGTGGGACGATTGGATCT  
 ATGATTTGGGCATCAAATATTCGTTTACAATTGAACTTCGAGATACGGGCACATACGGATTCTTGCTGCC  
 GGAGCGTTACATCAAACCCACCTGTAGAGAAGCTTTTGCCGCTGTCTCTAAAATAGCTTGGCATGTCAAT  
 AGGAATGTT

**ACGCGT**ACGCGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC202800 protein sequence  
 Red=Cloning site Green=Tags(s)

MKLCSLAVLVPIVLFCEQHVFAFQSGQVLAALPRTSRQVQLQNLTTTYEIVLWQPVTADLIVKKKQVHF  
 FVNASDNDNVKAHLNVSGIPCSVLLADVEDLIQQQISNDTVSPRASASYEQYHSLNEIYSWIEFITERH  
 PDMLTKIHIIGSSFEKYPLYVLKVSQKEQAANKNAIWIDCGIHAREWISPAFCLWFIGHITQFYGIIGQYTN  
 LLRLVDFYVMPVVNVVDGYDYSWKKNRMWRKNRSFYANNHCIGTDLNRNFASKHWCEEGASSSSCSEYCG  
 LYPESEPEVKAVASFLRRNINQIKAYISMHSYSQHIVFPYSYTRSKSKDHEELSLVASEAVRAIEKTSKN  
 TRYTHGHGSETLYLAPGGDDWIYDLGIKYSFTIELRDTGTYGFLPERYIKPTCREFAAVSKIAWHVI  
 RNV

**TR**TRPLEQKLISEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6729\\_c04.zip](https://cdn.origene.com/chromatograms/mk6729_c04.zip)

**Restriction Sites:**

Sgfl-Mlul

**Cloning Scheme:**


**ACCN:** NM\_001872

**ORF Size:** 1269 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.

**Note:** Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

**RefSeq:** [NM\\_001872.5](#)

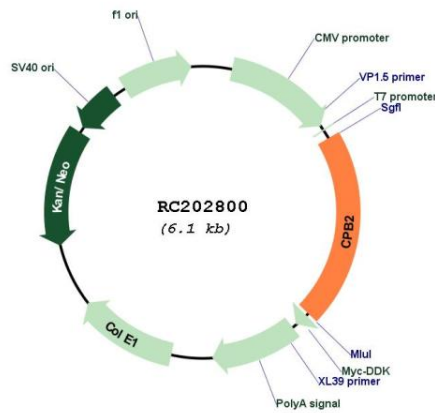
**RefSeq Size:** 1766 bp

**RefSeq ORF:** 1272 bp

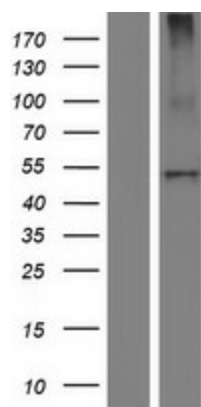
**Locus ID:** 1361

<b>UniProt ID:</b>	<u>Q96IY4</u>
<b>Cytogenetics:</b>	13q14.13
<b>Domains:</b>	Zn_carbOpept, Propep_M14
<b>Protein Families:</b>	Druggable Genome, Protease, Secreted Protein
<b>Protein Pathways:</b>	Complement and coagulation cascades
<b>MW:</b>	48.4 kDa
<b>Gene Summary:</b>	Carboxypeptidases are enzymes that hydrolyze C-terminal peptide bonds. The carboxypeptidase family includes metallo-, serine, and cysteine carboxypeptidases. According to their substrate specificity, these enzymes are referred to as carboxypeptidase A (cleaving aliphatic residues) or carboxypeptidase B (cleaving basic amino residues). The protein encoded by this gene is activated by trypsin and acts on carboxypeptidase B substrates. After thrombin activation, the mature protein downregulates fibrinolysis. Polymorphisms have been described for this gene and its promoter region. Alternate splicing results in multiple transcript variants. [provided by RefSeq, Jun 2013]

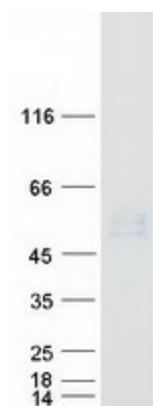
**Product images:**



Circular map for RC202800



Western blot validation of overexpression lysate (Cat# [LY419700]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202800 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CPB2 protein (Cat# [TP302800]). The protein was produced from HEK293T cells transfected with CPB2 cDNA clone (Cat# RC202800) using MegaTran 2.0 (Cat# [TT210002]).