

Product datasheet for RC202719

Carboxypeptidase A2 (CPA2) (NM_001869) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Carboxypeptidase A2 (CPA2) (NM_001869) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Carboxypeptidase A2
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC202719 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCCGCCCGATCGCC

ATGAGGTTGATCCTGTTTTTGGTGCCTTTTTGGGCATATCTACTGTCTAGAAACATTTGTGGGAGACC
AAGTCTTGAGATTGTACCAAGCAATGAAGAACAATTAATAATCTGCTACAATTGGAGGCTCAAGAACA
TCTCCAGCTTGATTTTTGGAAATCACCCACCACCCAGGGGAGACAGCCACGTCGAGTTCCCTTCGTC
AACGTCCAGGCAGTCAAAGTGTTCTTGGGGTCCCAGGGAATTCCTATTCATCATGATTGAAGACGTGC
AGGTCCTGTTGGACAAAGAGAATGAAGAAATGCTTTTTAATAGGAGAAGAGAACGGAGTGGTAACTTCAA
TTTTGGGGCCTACCATACCTGGAAGAGATTTCCAAGAAATGGATAACCTCGTGGCTGAGCACCCCTGGT
CTAGTGAGCAAAGTGAATATTGGCTCTTCTTTGAGAACCAGCCTATGAACGTGCTCAAGTTCAGCACCG
GAGGAGACAAGCCAGCTATCTGGCTGGATGCTGGGATCCATGCTCGAGAGTGGGTTACACAAGCTACGGC
ACTTTGGACAGCAAATAAGATTGTTCTGATTATGAAAGGACCCATCCATCACTTCCATTCTGGACGCC
CTGGATATCTTCTCCTGCCAGTCACAAACCCTGATGGATACGTGTTCTCTCAAACCAAAAATCGTATGT
GGCGGAAGACCCGGTCCAAGGTATCTGGAAGCCTCTGTGTTGGTGGATCCTAACCGAACTGGGATGC
AGGTTTTGGAGGACCTGGAGCCAGCAGCAACCCTTGCTCTGATTACACCGGACCCAGTGCCAACTCT
GAAGTTGAAGTGAATCCATAGTGGACTTCATCAAGAGTCATGAAAAGTCAAGGCCTTCATTACCCTCC
ACAGCTATTCAGCTGCTGATGTTCCCTATGGGTACAATGTACCAAGTTAGATGACTTTGATGAGCT
GAGTGAAGTGGCCAAAAGGCTGCCAATCTCTGAGAAGCCTGCATGGCACCAGTACAAAGTGGGACCA
ATCTGCTCTGTACTACCAAGCCAGTGGAGGAAGCATTGACTGGTCTATGATTATGGCATCAAGTACT
CATTTGCCTTTGAACTGAGAGACACAGGGCGCTACGGCTTCTCTTGGCAGCCCGTCAGATCCTGCCAC
AGCCGAGGAGACCTGGCTTGGCTTGAAGCAATCATGGAGCATGTGCGAGACCACCCCTAT

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC202719 protein sequence
Red=Cloning site Green=Tags(s)

MRLILFFGALFGHIYCLETFVGDQVLEIVPSNEEQIKNLLQLEAQEHLQLDFWKSPTTPGETAHVRVPFV
 NVQAVKVFLGSQGIAYSIMIEDVQVLLDKENEMLFNRRRERSGNFNFGAYHTLEEISQEMDNLVAEHPG
 LVSKVNIIGSSFENRPMNVLFKSTGGDKPAIWLDAAGIHAREWVTQATALWTANKIVSDYGDPSITSILDA
 LDIFLLPVTNPDGYVFSQTKNRMWRKTRSKVSGSLCVGVDPNRRWDAGFGGPGASSNPCSDSYHGPSANS
 EVEVKSIVDFIKSHGKVKAFITLHSYSQLLMFPYGYKCTKLDDFDELSEVAQKAAQSLRSLHGTYKVG
 ICSVIYQASGGSIDWSYDYGKYSFAFELRDTGRYGFLLPARQILPTAEETWLGKAIMEHVRDHPY

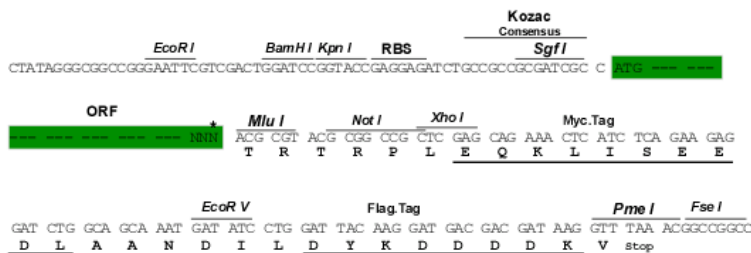
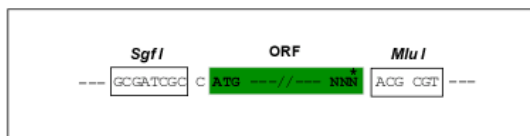
TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6153_a12.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



* The last codon before the Stop codon of the ORF

ACCN: NM_001869

ORF Size: 1251 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_001869.3](#)

RefSeq Size: 1342 bp

RefSeq ORF: 1260 bp

Locus ID: 1358

UniProt ID: [P48052](#)

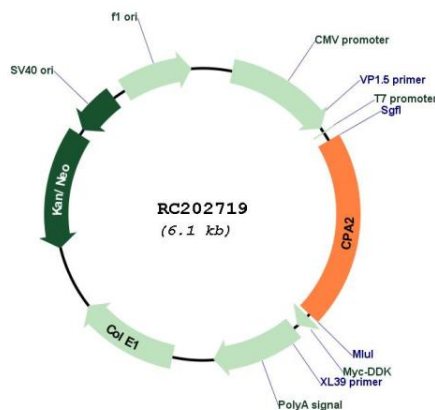
Cytogenetics: 7q32.2

Protein Families: Druggable Genome, Protease, Secreted Protein

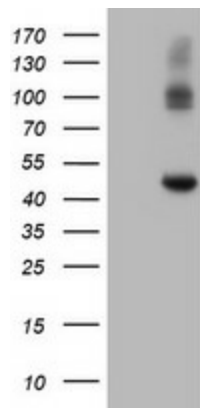
MW: 46.8 kDa

Gene Summary: Three different forms of human pancreatic procarboxypeptidase A have been isolated. The encoded protein represents the A2 form, which is a monomeric protein with different biochemical properties from the A1 and A3 forms. The A2 form of pancreatic procarboxypeptidase acts on aromatic C-terminal residues and is a secreted protein. [provided by RefSeq, Dec 2008]

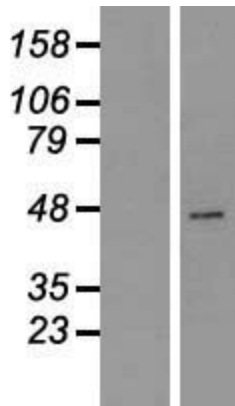
Product images:



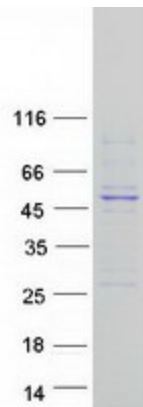
Circular map for RC202719



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY CPA2 (Cat# RC202719, 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-CPA2 (Cat# [TA504622]). Positive lysates [LY419697] (100ug) and [LC419697] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY419697]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202719 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified CPA2 protein (Cat# [TP302719]). The protein was produced from HEK293T cells transfected with CPA2 cDNA clone (Cat# RC202719) using MegaTran 2.0 (Cat# [TT210002]).