

## Product datasheet for **RG235181**

### Carboxypeptidase D (CPD) (NM\_001199775) Human Tagged ORF Clone

#### Product data:

|                           |  |
|---------------------------|--|
| Product Type:             | Expression Plasmids  |
| Product Name:             | Carboxypeptidase D (CPD) (NM_001199775) Human Tagged ORF Clone                 |
| Tag:                      | TurboGFP   |
| Symbol:                   | CPD  |
| Synonyms:                 | GP180  |
| Mammalian Cell Selection: | Neomycin   |
| Vector:                   | pCMV6-AC-GFP (PS100010)  |
| E. coli Selection:        | Ampicillin (100 ug/mL)   |
| ORF Nucleotide Sequence:  | >RG235181 representing NM_001199775<br>Red=Cloning site Blue=ORF Green=Tags(s) |

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAGGTTTGTGCTTTCTGGAATCTGCATGGTGGCTCAGTGGTAGCAAGCTATCCTTTTGATGATTCTC  
CAGAACATAAGGCCACTGGAATCTATAGCAAACCTCAGATGATGAAGTATTTAAATACTTGCCAAAAGC  
TTATGCTTCAAACCACCCATAATGAAACTGGTGAAGCTCATTGTCCAGGAGATGAAGACGAGACTTTC  
AAAGATGGAATCACAACGGCGCACATTGGTATGATGTGGAAGGTGGTATGCAAGATTACAATTATGTGT  
GGGCAACTGTTTGGATCACATTAGAAGTGTCTTGTGCAAGTACCCACCTGTTACAGCTTCGACA  
GGAATGGGAGAACAATCGTGAGTCTTTGATCACATTGATTGAAAAGGTTACATTGGAGTAAAGGATTT  
GTTAAAGATTCCATAACAGGATCTGGGTTAGAGAATGCAACCATCTCAGTGGCTGGTATTAATCATAATA  
TCACAACAGGCAGATTTGGTGAATTTCTACCGATTACTTGTTCCTGGAACCTACAACCTTACAGTAGTTTT  
AACTGGGTATATGCCATTGACTGTTACTAATGTAGTGGTAAAAGAAGGACCAGCCACAGAGGTGGATTTT  
TCTCTTAGGCCAACTGTAACCTCAGTAATCCCTGACACGACAGAGGCTGTATCAACTGCTAGCACAGTTG  
CTATACCTAATATTCTTTCTGGAACATCATCCTCCTACCAGCCAATTAGCCAAAGGACTTTCACCA  
CCATTTCCCTGATATGGAATCTTCTTGAGAAGGTTTGCCAAATGAATATCCTAACATTACCCGGCTTTAT  
TCCTTGGGAAAATCAGTAGAGTCAAGAGAAGTATGATGATGGAGATATCTGATAATCCGGGTGCCATG  
AACCAGGTGAACCAAGATTTAAGTACATTGGAATATGCATGGAATGAAGTGGTTGGAAGAGAAGTCT  
GTTGAACCTCATAGAATACCTTTGTAAGAAGTGGAAACAGACCTGAAGTACAGATTTGGTTCATAAC  
ACTAGAATCACCTTATGCCATCCATGAATCCTGATGGGTATGAAAAGTCCCAGGAAGGAGATTCAATAA  
GTGTAATTGGCAGAAAACAACAGCAACAACCTTTGACCTGAACCGAAATTTCCAGACCAGTTTGTTCAGAT  
CACAGATCCTACGCAACCAGAACTATTGCTGTAATGAGCTGGATGAAGTCTATCCATTTGACTTTCA  
GCAACCTGCATGGAGTTCTTTGGTGGTTAACTACCCTTTTGATGATGATGAACAAGGACTTGCCACAT  
ATAGTAAATCACCAGATGATGCTGTGTTCCAACAATAGCACTTTCTTATTCCAAGGAAAATCCCAGAT  
GTTTCAAGGTAGACCTTGAAGAATATGTATCCTAATGAATATTTCTCATGGAATAACAATGGAGCT



[View online >](#)

```

AGTTGGTATAATGTGCCAGGAGGAATGCAGGACTGGAAC TATTTACAAACAAATTGCTTTGAAGTACTA
TTGAACTAGGTTGTGAAAATCCACTTGAGAAAAGAGCTGCCAACTTTTGGGAACAGAATCGAAGATC
ACTAATCCAGTTTATGAAACAGGTTTCATCAGGGCGTCAGAGGATTTGTTCTAGATGCCACAGATGGCAGG
GGTATATTAATGCCACCATTAGTGTGGCTGAGATTAATCACCAGTGACTACTTACAAAACCTGGAGATT
ACTGGCGTCTCTGGTTCCAGGAACCTATAAAAACACAGCATCTGCTCGAGGGTATAATCCAGTTACCAA
GAATGTGACTGTCAAGAGTGAAGGCGCTATTCAGGTCAACTTACACTTGTTCGATCCTCAACAGATTCAA
AACCAATGAATCAAAGAAAGGAAAAGGGCTAGCAGCAGCACCAATGATGCCAGTGTCCAACACTATAAG
AGTTTGAACCTTAAATTAAGACCTTTTACGGGAGAATGGTTTGGAAAGCCTCATGTTACGCTCCTCCTC
AAATCTGGCTCTGGCTCTTTATCGATACCATTCTACAAAGACTTATCAGAGTTTCTGAGAGGACTTGTA
ATGAACTATCCACATATTACAACTTACCAATTTGGGACAGAGCACTGAATATCGTCACATTTGGTCCC
TTGAAATCTCCAATAAGCCCAATGTATCTGAGCCTGAAGAACCAAGATTCGTTTTGTTGCTGGTATCCA
TGGAAATGCGCCAGTTGGAAC TGAAC TCTTTGGCTCTGGCAGAATTTCTGCTGAACTACAAAAG
AACCCAGCTGTTACCAATTGGTTGACAGGACTAGGATTGTGATTGTCCCTTCTAAATCCAGATGGGC
GAGAGAGAGCTCAAGAGAAAGACTGTACTTCAAAAATAGGACAAACAAATGCTCGTGGCAAAGATTTGGA
TACAGACTTCACAAATAATGCCTCCCACTGAGACCAAAAGCCATCATTGAAAATTTGATTCAAAAACAG
GACTTTAGTCTTTCTGTTGCCTTAGATGGTGGTCCATGCTGGTCACATATCCTTATGACAAGCCAGTAC
AGACAGTGGAAAATAAGAGACTCTGAAGCATTGGCATCTCTTTATGCAATAATCATCCATCCATGCA
CATGGGTGAGCCAGTTGCCCAATAAATCAGATGAGAATATCCAGGAGGAGTAATGCGTGAGAGCAGAA
TGGCATAGTCACTGGGCAGCATGAAGGATTATAGTGTACCATATGGCCATTGTCGGAAATCACAGTAT
ACACAAGCTGCTGTTACTTTCTAGTGTGCAGACTCCCTTCTTGTGGGCAGACAATAAGAGATCTCT
TCTTAGTATGTTAGTGGAGTTTACAAGGGAGTTCATGGATTTGTTAAAGATAAGACTGGAAAGCCAATC
TCTAAAGCAGTCATTGTACTTAATGAAGGAATAAAGGTACAAACAAAAGAGGGAGGTTATTTCCATGTAC
TCTTAGCGCCAGGTGCCATAACATTATTGCCATCGCTGATGGTACCAGCAACAACATCACAGTCTT
TGTGCATCATGATGCAGCTAGTTCTGTGGTATAGTCTTTGACACAGATAACCGGATATTTGGTTTGCCA
AGGGAGCTTGTGGTAACTGTATCAGGTGCTACTATGTCGGCATTGATCCTAACAGCTTGCAATTTTGGT
GCATCTGCTCAATCAAGTCTAATAGACACAAGGATGGCTTTCATCGGCTCAGGCAGCATCATGATGAGTA
TGAAGATGAAATTCGCATGATGTCTACCGGCTCCAAGAAGTCCCTCCTAAGCCATGAGTTCAGGATGAA
ACAGACTGAAGAGGAAACATTATATTCTAGCAAAACAT
    
```

ACGCGTACGCGGCCGCTCGAG – GFP Tag – GTTTAA

**Protein Sequence:**

>RG235181 representing NM\_001199775  
 Red=Cloning site Green=Tags(s)

```

MRFVLSGNLHGGSVVASYPFDDSPPEHKATGIYSKTSDDDEVFKYLAKAYASNHPIMKTGEPHCPGDEDETF
KDGITNGAHWYDVEGMDQDYNVWANC FEITLLESCCKYPPASQLRQEWENNRESLITLIEKVHIGVKGF
VKDSITGSGLENATISVAGINHNIITGRFGDFYRLLVPGTYNLTVVLTGYMPLTVTNVVKKEGPATEVDF
SLRPTVTSVIPDTEAVSTASTVAIPNILSGTSSSYQPIQPKDFHHHHFPDMEIFLRRFANEYPNITRLY
SLGKSVESRELYVMEISDNPGVHEPGEPEFKYIGNMHGNEVVGRELLLNLEYLCKNFGTDPVTDLVHN
TRIHLMPSMNPDPGYEKSQEGDSISVIGRNNSNFDLNRNFPDQFVQITDPTQPETIAVMSWMKSYPFVLS
ANLHGGSLVVNYPFDDEQGLATYSKSPDDAVFQQIALSYSKENSQMFQGRPCKNMYPNEYFPHGITNGA
SWYNVPGMDQWNYLQTNCFEVTIELGCVKYPLEKELPNFWEQNRSLIQFMKQVHQGVGRFVLDATDGR
GILNATISVAEINHPVTYKTDYWRLLVPGTYKITASARGYNPVTKNVTKSEGAIQVNFVLRSSDTS
NNEKSKGKGASSSTNDASDPTTKEFETLIKDL SAENGLLESLMLRSSNLALALRYHYSYKDLSEFLRGLV
MNYPHITNLNLGQSTERYRHIWSLEISNKPVSEPEEPKIRFVAGIHGNAPVGTLLLLALAEFLCLNYKK
NPAVTQLVDRTRIVIVPSLNPDRERAQEKDCTSKIGQTNARGKDLDTDFTNNASQPETKAIENLIQKQ
DFSLSVALDGGSM LVTPYDKPVQTVENKETLKHLSLYANNHPSMHMQPSCPKNKSDENIPGGVMRGAE
WHSHLGSMKDYSVTYGHCP EITVYTSCCYFPSAARLPSLWADNKRSLLSMLVEVHKGVHGFVKDKTGKPI
SKAVIVLNEGKQVQTKEGGYFHVLLAPGVHNI IA IADGYQQQHSQVVFVHDAASSVVIVFDTDNRIFGLP
RELVVTVSGATMSALILTACIIWCICSIKSNRHKDGFHRLRQHHEDEYEDEIRMMSTGSKSLLSHEFQDE
TDTEETLYSSKH
    
```

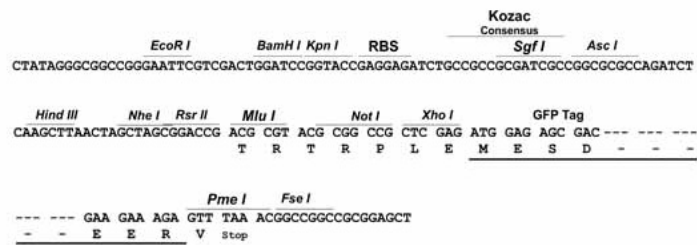
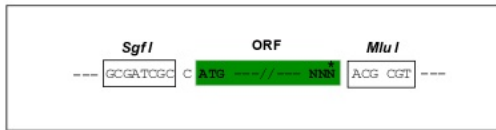
TRTRPLE – GFP Tag – V

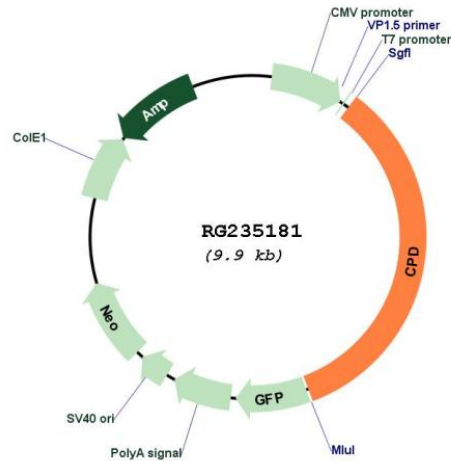
Restriction Sites:

SgfI-MluI

Cloning Scheme:

Cloning sites used for ORF Shuttling:



**Plasmid Map:**


**ACCN:** NM\_001199775

**ORF Size:** 3399 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\\_001199775.1](#), [NP\\_001186704.1](#)

**RefSeq Size:** 8422 bp

**RefSeq ORF:** 3402 bp

**Locus ID:** 1362

**UniProt ID:** [O75976](#)

**Cytogenetics:** 17q11.2

**Protein Families:** Druggable Genome, Protease, Transmembrane

**Gene Summary:** The metalloproteinase family of enzymes is divided into 2 subfamilies based on sequence similarities. The pancreatic carboxypeptidase-like and the regulatory B-type carboxypeptidase subfamilies. Carboxypeptidase D has been identified as a regulatory B-type carboxypeptidase. CPD is a homolog of duck gp180, a hepatitis B virus-binding protein. Transcript variants utilizing alternative polyadenylation signals exist for this gene. [provided by RefSeq, Jul 2008]