

## Product datasheet for **RC201970**

### PEPD (NM\_000285) Human Tagged ORF Clone

#### Product data:

|                           |   |
|---------------------------|---|
| Product Type:             | Expression Plasmids                     |
| Product Name:             | PEPD (NM_000285) Human Tagged ORF Clone |
| Tag:                      | Myc-DDK                                 |
| Symbol:                   | PEPD                                    |
| Synonyms:                 | PROLIDASE                               |
| Mammalian Cell Selection: | Neomycin                                |
| Vector:                   | pCMV6-Entry (PS100001)                  |
| E. coli Selection:        | Kanamycin (25 ug/mL)                    |



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**ORF Nucleotide Sequence:**

>RC201970 ORF sequence  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGGCCACCGACCTCGTTTTGGCTGGGAATGAAACCCTGAAGGTGCCGCTGGCCTCTTTG  
 CCTTGAACCGGCAGCGCCTGTGTGAGCGCTGCGAAGAACCCTGCTGTGAGCGCGCTCCATCGTGGT  
 CCTGCAGGGGGGAGGAGACTCAGCGCTACTGCACCGACACCGGGTCTCTTCCGCCAGGAGTCTTTC  
 TTTCACTGGGCGTTCGGTGTCACTGAGCCAGGCTGCTATGGTGTGATCGATGTTGACACTGGGAAGTCGA  
 CCCTGTTTGTGCCAGGCTTCTGCCAGCCATGCCACCTGGATGGGAAAGATCCATTCCAAGGAGCACTT  
 CAAGGAGAAGTATGCCGTGGACGACGTCCAGTACGTAGATGAGATTGCCAGCGTCTGACGTCACAGAAG  
 CCCTCTGTCTCTCACTTTGCGTGGCGTCAACACGGACAGCGGAGTGTCTGCAGGGAGGCTCCTTTG  
 ACGGCATCAGCAAGTTCGAAGTCAACAATACCATTCTTCAACCAGAGATCGTTGAGTGCCGAGTGTAA  
 GACGGATATGGAGCTGGAGTTCGCGTATACCAATAAAATCTCCAGCGAGGCCACCGTGAGGTAATG  
 AAGGCTGTAAAAGTGGGAATGAAAGAATATGAGTTGAAAAGCCTCTTCGAGCACTACTGCTACTCCGGG  
 GCGCATGCGCCACAGCTCCTACACCTGCATCTGCGGCAGTGGTGAAGTCAAGCGTGTACTACTACGG  
 ACACGCCGGAGCTCCCAACGACCGAACGATCCAGAATGGGGATATGTGCCTGTTGACATGGGCGGTGAG  
 TATTACTGCTTCGCTTCCGACATCACCTGCTCCTTTCCCGCAACGGCAAGTTCCTGACAGCAGAAAGG  
 CCGTCTATGAGGCAGTGTGCGGAGTCCCGTCCCGTCAATGGGTGCCATGAAGCCAGGTGTCTGGTGGCC  
 TGACATGCACCGCCTGGCTGACCGCATCCACCTGGAGGAGCTGGCCACATGGGCATCCTGAGCGGCAGC  
 GTGGAGCCATGGTCCAGGCTCACCTGGGGCGTGTATGCCTCACGGGCTTGGCCACTCCTGGGCA  
 TTGACGTGCACGACGTGGGAGGCTACCCAGAGGGCGTGGAGCGCATCGACGAGCCCGGCTGCGGAGCCT  
 GCGCACTGCACGGCACCTGCAGCCAGGCATGGTGTCTCACCGTGGAGCCGGGCATCTACTCATCGACCAC  
 CTCTGGATGAGGCCCTGGCGGACCCGGCCCGCCTCCTTCTTAACCGGAGGTCTGACGCGTTC  
 GCGTTTTGGCGGGTCCGCATCGAGGAGGACGTGCTGGTACTGACAGCGGCATAGAGCTGCTGACCTG  
 CGTGCCCCGCACTGTGGAAGAGATTGAAGCATGCATGGCAGGCTGTGACAAGGCCTTTACCCCTTCTCT  
 GGCCCAAG

**ACGCGT**ACGCGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCTGGATT  
 ACAAGGATGACGACGATAAGGTTTAA

**Protein Sequence:**

>RC201970 protein sequence  
 Red=Cloning site Green=Tags(s)

MAAATGPSFWLGNELKVLPLALFALNRQLCERLRKNPAVQAGSIVVLQGGEEQRYCTDTGVLFRQESF  
 FHWAFGVTEPGCYGVIDVDTGKSTLFVPRLPASHATWMGKIHSKEHFKEKYAVDDVQYVDEIASVLTSSQK  
 PSVLLTLRGVNTDSGSVCREASFDGISKFEVNNTILHPEIVECRVFKTDMELVLRNTKISSEAHREVM  
 KAVKVMKEYELESLEFYHCYSRGGMRHSSYTCICSGENSAVLHYGHAGAPNDRTIQNGDMCLFDMGGE  
 YYCFASDITCSFPANGKFTADQKAVYEAVLRSSRAVMGAMKPGVWVWPMHRLADRIHLEELAHMGILSGS  
 VDAMVQAHLGAVFMPHGLGHFLGIDVHDVGGYPEGVERIDEPGLRSLRTARHLQPGMVLVEPGIYFIDH  
 LLDEALADPARASFLNREVLQFRFRGGVRIEEDVVVTDSGIELLTCVPRTVEEIEACMAGCDKAFTPFS  
 GPK

**TRTRPLEQKLI**SEEDLAANDILDYKDDDDKV

**Chromatograms:**

[https://cdn.origene.com/chromatograms/mk6307\\_c07.zip](https://cdn.origene.com/chromatograms/mk6307_c07.zip)

**Restriction Sites:**

Sgfl-Mlul

Cloning Scheme:



ACCN: NM\_000285

ORF Size: 1479 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\\_000285.4](#)

RefSeq Size: 2019 bp

RefSeq ORF: 1482 bp

Locus ID: 5184

UniProt ID: [P12955](#)

Cytogenetics: 19q13.11

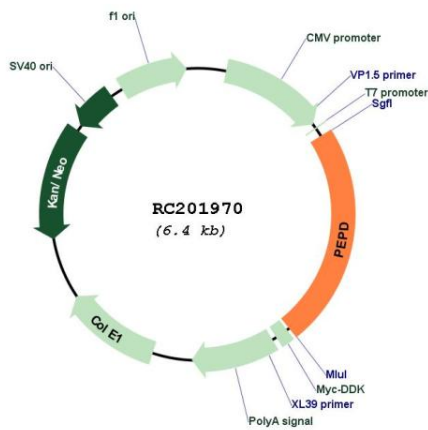
**Domains:** Peptidase\_M24, AMP\_N

**Protein Families:** Druggable Genome, Protease

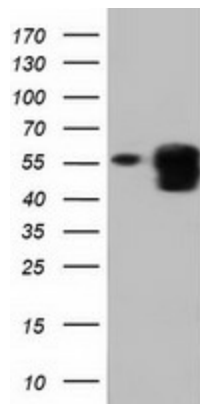
**MW:** 54.5 kDa

**Gene Summary:** This gene encodes a member of the peptidase family. The protein forms a homodimer that hydrolyzes dipeptides or tripeptides with C-terminal proline or hydroxyproline residues. The enzyme serves an important role in the recycling of proline, and may be rate limiting for the production of collagen. Mutations in this gene result in prolidase deficiency, which is characterized by the excretion of large amount of di- and tri-peptides containing proline. Multiple transcript variants encoding different isoforms have been found for this gene. [provided by RefSeq, Oct 2009]

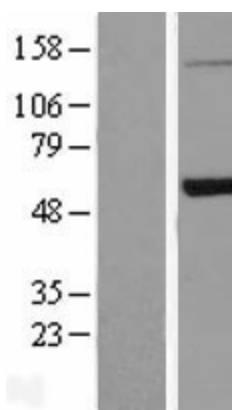
**Product images:**



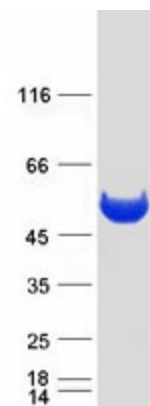
Circular map for RC201970



HEK293T cells were transfected with the pCMV6-ENTRY control (Cat# [PS100001], Left lane) or pCMV6-ENTRY PEPD (Cat# RC201970, 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-PEPD (Cat# [TA501655]). Positive lysates [LY424818] (100ug) and [LC424818] (20ug) can be purchased separately from OriGene.



Western blot validation of overexpression lysate (Cat# [LY424818]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC201970 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PEPD protein (Cat# [TP301970]). The protein was produced from HEK293T cells transfected with PEPD cDNA clone (Cat# RC201970) using MegaTran 2.0 (Cat# [TT210002]).