

## Product datasheet for **RG201970**

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

#### Product data:

Product Type:	Expression Plasmids
Product Name:	PEPD (NM_000285) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	PEPD
Synonyms:	PROLIDASE
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)



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**ORF Nucleotide Sequence:**

>RG201970 representing NM\_000285  
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
 GCC**CGCATCGCC**

ATGGCGGGCCACCGACCCTCGTTTTGGCTGGGAATGAAACCCTGAAGGTGCCGCTGGCCTCTTTG  
 CCTTGAACCGGCAGCGCCTGTGTGAGCGCTGCGGAAGAACCCTGCTGTGCAAGCCGGCTCCATCGTGGT  
 CCTGCAGGGCGGGAGGAGACTCAGCGCTACTGCACCGACACCGGGTCTCTTCCGCCAGGAGTCTTTC  
 TTTCACTGGGCGTTCGGTGTCACTGAGCCAGGCTGCTATGGTGTGATCGATGTTGACACTGGGAAGTCGA  
 CCCTGTTTGTGCCAGGCTTCTGCCAGCCATGCCACCTGGATGGGAAAGATCCATTCCAAGGAGCACTT  
 CAAGGAGAAGTATGCCGTGGACGACGTCCAGTACGTAGATGAGATTGCCAGCGTCTGACGTCACAGAAG  
 CCCTCTGTCTCTCACTTTGCGTGGCGTCAACACGGACAGCGGAGTGTCTGCAGGGAGGCTCTTTG  
 ACGGCATCAGCAAGTTCGAAGTCAACAATACCATTCTTCAACCCAGAGATCGTTGAGTGCCGAGTGTAA  
 GACGGATATGGAGCTGGAGTTCGCGTATACCAATAAAATCTCCAGCGAGGCCACCGTGAGGTAATG  
 AAGGCTGTAAAAGTGGGAATGAAAGAATATGAGTTGAAAAGCCTCTTCGAGCACTACTGCTACTCCCGGG  
 GCGGCATGCGCCACAGCTCCTACACCTGCATCTGCGGCAGTGGTGAAGTCAAGCCGTGCTACACTACGG  
 ACACGCCGGAGCTCCCAACGACCGAACGATCCAGAATGGGGATATGTGCCTGTTGACATGGGCGGTGAG  
 TATTACTGCTTCGCTTCCGACATCACCTGCTCCTTCCCGCCAACGGCAAGTTCCTGACAGACCAGAAGG  
 CCGTCTATGAGGCAGTGTGCGGAGTCCCGTCCCGTCAATGGGTGCCATGAAGCCAGGTGTCTGGTGGCC  
 TGACATGCACCGCCTGGCTGACCGCATCCACCTGGAGGAGCTGGCCACATGGGCATCCTGAGCGGCAGC  
 GTGACGCCATGGTCCAGGCTCACCTGGGGCCGTGTTTATGCCTCACGGCTTGGCCACTTCTGGGCA  
 TTGACGTGCACGACGTGGGAGGCTACCCAGAGGGCGTGGAGCGCATCGACGAGCCCGGCTGCGGAGCCT  
 GCGCACTGCACGGCACCTGCAGCCAGGCATGGTGTCTCACCGTGGAGCCGGGCATCTACTTCATCGACCAC  
 CTCTGGATGAGGCCCTGGCGGACCCGGCCCGCCTCCTTCTTAACCGCGAGGTCTGACGCGTTC  
 GCGGTTTTGGCGGGTCCGCATCGAGGAGGACGTGCTGGTACTGACAGCGGCATAGAGCTGCTGACCTG  
 CGTGCCCCGCACTGTGGAAGAGATTGAAGCATGCATGGCAGGCTGTGACAAGGCCTTTACCCCTTCTCT  
 GGCCCAAG

**ACGCGTACGCGGCCGCTCGAG** – GFP Tag – GTTTAA

**Protein Sequence:**

>RG201970 representing NM\_000285  
 Red=Cloning site Green=Tags(s)

MAAATGPSFWLGNELTKVPLALFALNRQRLCERLRKPNVQAGSIVVLQGGEEQRYCTDTGVLFRQESF  
 FHWAFGVTEPGCYGVIDVDTGKSTLFPVRLPASHATWMGKIHSKEHFKEKYAVDDVQYVDEIASVLTSSQK  
 PSVLLTLRGVNTDSGSVCREASFDGISKFEVNNTILHPEIVECRVFKTDMELVLRNTKISSEAHREVM  
 KAVKVGMEYELESLFEHYCYSRGGMRHSSYTCICSGGENSAVLHYGHAGAPNDRTIQNGMCLFDMGGE  
 YYCFASDITCSFPANGKFTADQKAVYEAVLRSSRAVMGAMKPGVWVWVPMHRLADRIHLEELAHMGILSGS  
 VDAMVQAHLGAVFMPHGLGHFLGIDVHDVGGYPEGVERIDEPGLRSLRTARHLQPGMVLVTEPGIYFIDH  
 LLDEALADPARASFLNREVLQFRFRGGVRIEEDVVVTDSGIELLTCVPRTVEEIEACMAGCDKAFTPFS  
 GPK

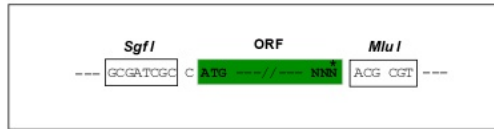
**TRTRPLE** – GFP Tag – V

**Restriction Sites:**

Sgfl-MluI

## Cloning Scheme:

Cloning sites used for ORF Shutting:



```
                               Kozac
                               Consensus
EcoRI      BamHI KpnI   RBS      SgfI      AscI
CTATAGGGCGGCCGGAATTCGTGACTGGATCCGGTACCGAGSAGATCTGCCGCCGATCGCCGGCGCCAGATCT

HindIII   NheI  RsrII   MluI      NotI     XhoI      GFP Tag
CAAGCTTAAGTAGCTAGCGGACCG  ACG CGT  ACG CGG  CCG CTC GAG  ATG GAG AGC GAC --- --- ---
                              T  R  T  R  P  L  E      M  E  S  D  -  -  -

                               PmeI   FseI
--- --- GAA GAA AGA GTT TAA ACGGCCGGCCCGGAGCT
- - -  E  E  R  V  Stop
```

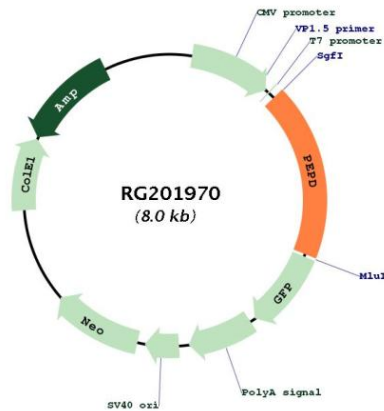
ACCN:	NM_000285
ORF Size:	1479 bp
OTI Disclaimer:	The molecular sequence of this clone aligns with the gene accession number as a point of reference only. However, individual transcript sequences of the same gene can differ through naturally occurring variations (e.g. polymorphisms), each with its own valid existence. This clone is substantially in agreement with the reference, but a complete review of all prevailing variants is recommended prior to use. <a href="#">More info</a>
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:	<ol style="list-style-type: none"><li>1. Centrifuge at 5,000xg for 5min.</li><li>2. Carefully open the tube and add 100ul of sterile water to dissolve the DNA.</li><li>3. Close the tube and incubate for 10 minutes at room temperature.</li><li>4. Briefly vortex the tube and then do a quick spin (less than 5000xg) to concentrate the liquid at the bottom.</li><li>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.</li></ol>
RefSeq:	<a href="#">NM_000285.4</a>
RefSeq Size:	1888 bp
RefSeq ORF:	1482 bp
Locus ID:	5184
UniProt ID:	<a href="#">P12955</a>
Cytogenetics:	19q13.11

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

**Protein Families:** Druggable Genome, Protease

**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 prolylase 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 RG201970