

## Product datasheet for RC219574

### Pepsin (PGA4) (NM\_001079808) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Pepsin (PGA4) (NM_001079808) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Pepsin
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC219574 representing NM_001079808. Blue=ORF Red=Cloning site Green=Tag(s)

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GCTCGTTTAGTGAACCGTCAGAATTTTGTAAACGACTCACTATAGGGCGGCCGGGAATTCGTCGACTG
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TACAAGGATGACGACGATAAGGTTTAAACGGCCGGC
```



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**Protein Sequence:** >Peptide sequence encoded by RC219574  
 Blue=ORF Red=Cloning site Green=Tag(s)

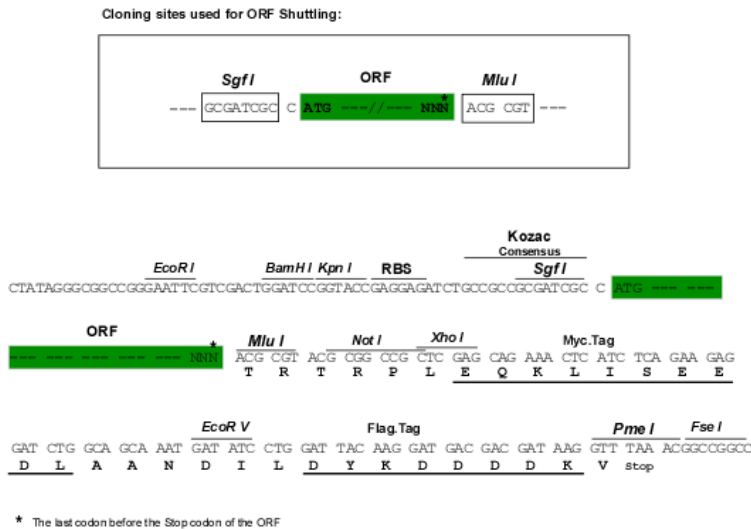
MKWL L L L L G L V A L S E C I M Y K V P L I R K K S L R R T L S E R G L L K D F L K K H N L N P A R K Y F P Q W E A P T L V D E Q P L E  
 N Y L D M E Y F G T I G I G T P A Q D F T V V F D T G S S N L W P S V Y C S S L A C T N H N R F N P E D S S T Y Q S T S E T V S I T Y G  
 T G S M T G I L G Y D T V Q V G G I S D T N Q I F G L S E T E P G S F L Y Y A P F D G I L G L A Y P S I S S S G A T P V F D N I W N Q G L  
 V S Q D L F S V Y L S A D D Q S G S V V I F G G I D S S Y Y T G S L N W V P V T V E G Y W Q I T V D S I T M N G E A I A C A E G C Q A I V  
 D T G T S L L T G P T S P I A N I Q S D I G A S E N S D G M V V S C S A I S S L P D I V F T I N G V Q Y P P P S A Y I L Q S E G S C I  
 S G F Q G M N L P T E S G E L W I L G D V F I R Q Y F T V F D R A N N Q V G L A P V A  
 T R T R P L E Q K L I S E E D L A A N D I L D Y K D D D D K V

Recombinant protein using RC219574 also available, [TP319574](#)

**Chromatograms:** [https://cdn.origene.com/chromatograms/mk6329\\_c09.zip](https://cdn.origene.com/chromatograms/mk6329_c09.zip)

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_001079808

**ORF Size:** 1164 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\\_001079808.6](#)

**RefSeq Size:** 1413 bp

**RefSeq ORF:** 1167 bp

**Locus ID:** 643847

**UniProt ID:** [P00790](#)

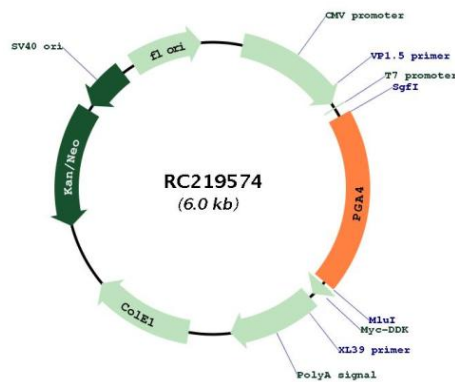
**Cytogenetics:** 11q12.2

**Protein Families:** Druggable Genome

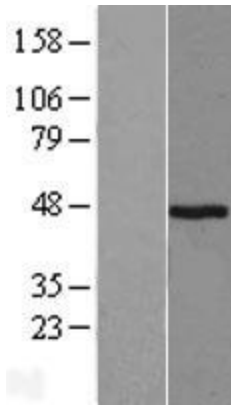
**MW:** 42 kDa

**Gene Summary:** This gene encodes a protein precursor of the digestive enzyme pepsin, a member of the peptidase A1 family of endopeptidases. The encoded precursor is secreted by gastric chief cells and undergoes autocatalytic cleavage in acidic conditions to form the active enzyme, which functions in the digestion of dietary proteins. This gene is found in a cluster of related genes on chromosome 11, each of which encodes one of multiple pepsinogens. Pepsinogen levels in serum may serve as a biomarker for atrophic gastritis and gastric cancer. [provided by RefSeq, Jul 2015]

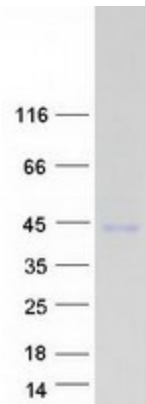
**Product images:**



Circular map for RC219574



Western blot validation of overexpression lysate (Cat# [LY421543]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC219574 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PGA4 protein (Cat# [TP319574]). The protein was produced from HEK293T cells transfected with PGA4 cDNA clone (Cat# RC219574) using MegaTran 2.0 (Cat# [TT210002]).