

## Product datasheet for **RG210051**

### Pepsinogen II (PGC) (NM\_002630) Human Tagged ORF Clone

#### Product data:

Product Type:	Expression Plasmids
Product Name:	Pepsinogen II (PGC) (NM_002630) Human Tagged ORF Clone
Tag:	TurboGFP
Symbol:	Pepsinogen II
Synonyms:	PEPC; PGII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC-GFP (PS100010)
E. coli Selection:	Ampicillin (100 ug/mL)
ORF Nucleotide Sequence:	>RG210051 representing NM_002630 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC  
GCC**CGATCGCC**

ATGAAGTGGATGGTGGTGGTCTTGGTCTGCCTCCAGCTCTTGGAGGCAGCAGTGGTCAAAGTGCCCTGA  
AGAAATTTAAGTCTATCCGTGAGACCATGAAGGAGAAGGGCTTGTGGGGAGTTCTGAGGACCCACAA  
GTATGATCCTGCTTGAAGTACCGCTTTGGTGACCTCAGCGTGACCTACGAGCCCATGGCCTACATGGAT  
GCTGCCTACTTTGGTGAATCAGCATCGGGACTCCACCCAGAATTCTGGTCTTTTTGACACCGGCT  
CCTCCAATTGTGGTGCCTCTGTCTACTGCCAGAGCCAGGCTGCACCAAGTCACTCCCGCTTCAACCC  
CAGCGAGTCGTCCACCTACTCCACCAATGGGCAGACCTTCTCCCTGCAGTATGGCAGTGGCAGCCTCACC  
GGCTTCTTTGGCTATGACACCCTGACTGTCCAGAGCATCCAGGTCCCAACCAGGAGTTCGGCTTGAGTG  
AGAATGAGCCTGGTACCAACTTCGTCTATGCGCAGTTTGTGGCATCATGGGCTGGCCTACCCTGCTCT  
GTCCGTGGATGAGGCCACCACAGCTATGCAAGGATGGTGCAGGAGGGCGCCCTCACCAGCCCCGTCTTC  
AGCGTCTACCTCAGCAACCAGCAGGGCTCCAGCGGGGAGCGGTTGTCTTTGGGGTGTGGATAGCAGCC  
TGTACACGGGGCAGATCTACTGGCGCCTGTCAACCAGGAATCTACTGGCAGATTGGCATTGAAGATT  
CCTCATCGGGCCAGGCTCCGGCTGGTGTCTGAGGGTTGCCAGGCCATCGTGGACACAGGCACCTCT  
CTGCTCACTGTGCCCCAGCAGTACATGAGTGTCTTCTGCAGGCCACAGGGGCCAGGAGGATGAGTATG  
GACAGTTTCTCGTGAATGTAACAGCATTGAGAACTGCCCCAGTTGACCTTCATCATCAATGGTGTGGA  
GTTCCCTCTGCCACCTTCTCCTATATCCTCAGTAACAACGGCTACTGCACCGTGGGAGTCGAGCCACC  
TACCTGTCTCCAGAACGGCCAGCCCCTGTGGATCCTCGGGATGTCTTCTCAGGTCCTACTATTCCG  
TCTACGACTTGGGCAACAACAGAGTAGGCTTTGCCACTGCCGCC

**ACCGT**ACGCGGCCGCTCGAG - GFP Tag - GTTTAA



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**Protein Sequence:** >RG210051 representing NM\_002630  
 Red=Cloning site Green=Tags(s)

```
MKWMVVVLVCLQLLEAAVVKVPLKFKSIRETMKEKLLGEFLRTHKYDPAWKYRFGDLSVTYEPMAYMD
AAYFGEISIGTPPQNFLVLFDTGSSNLWVPSVYCQSQACTSHSRFNPSESSTYSTNGQTFSLQYGSGLT
GFFGYDTLTVQSIQVNPQEFGLSENEPGTNFVYAQFDGIMGLAYPALSVDEATTAMQGMVQEGALTSPVF
SVYLSNQQGSSGGAVVFGGVDSSLYTGQIYWAPVTQELYWQIGIEEFLIGGQASGWCSEGCQAIVDTGTS
LLTVPQQYMSALLQATGAQEDEYGFVNCNSIQNLPSLTFIINGVEFPLPPSSYILSNNGYCTVGVEPT
YLSSQNGQPLWILGDVFLRSYYSYVDLGNNRVGFATAA
```

TRTRPLE - GFP Tag - V

**Restriction Sites:** SgfI-MluI

**Cloning Scheme:**



**ACCN:** NM\_002630

**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\\_002630.4](#)

**RefSeq Size:** 1366 bp

**RefSeq ORF:** 1167 bp

**Locus ID:** 5225

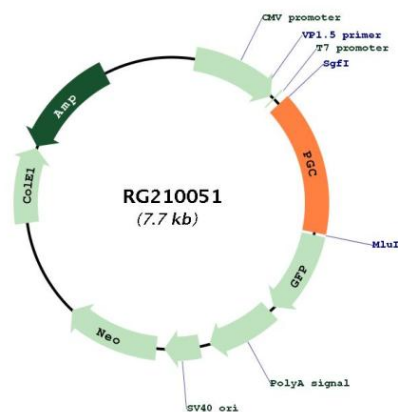
**UniProt ID:** [P20142](#)

**Cytogenetics:** 6p21.1

**Protein Families:** Protease, Secreted Protein

**Gene Summary:** This gene encodes an aspartic proteinase that belongs to the peptidase family A1. The encoded protein is a digestive enzyme that is produced in the stomach and constitutes a major component of the gastric mucosa. This protein is also secreted into the serum. This protein is synthesized as an inactive zymogen that includes a highly basic prosegment. This enzyme is converted into its active mature form at low pH by sequential cleavage of the prosegment that is carried out by the enzyme itself. Polymorphisms in this gene are associated with susceptibility to gastric cancers. Serum levels of this enzyme are used as a biomarker for certain gastric diseases including Helicobacter pylori related gastritis. Alternate splicing results in multiple transcript variants. A pseudogene of this gene is found on chromosome 1. [provided by RefSeq, Oct 2009]

## Product images:



Circular map for RG210051