

Product datasheet for RC210051

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:	Myc-DDK
Symbol:	Pepsinogen II
Synonyms:	PEPC; PGII
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)
ORF Nucleotide Sequence:	>RC210051 ORF sequence Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
GCC**CGATCGCC**

ATGAAGTGGATGGTGGTGGTCTTGGTCTGCCTCCAGCTCTTGGAGGCAGCAGTGGTCAAAGTGCCCTGA
AGAAATTTAAGTCTATCCGTGAGACCATGAAGGAGAAGGGCTTGTGGGGAGTTCTGAGGACCCACAA
GTATGATCCTGCTTGAAGTACCGCTTTGGTGACCTCAGCGTGACCTACGAGCCCATGGCTACATGGAT
GCTGCCTACTTTGGTGAATCAGCATCGGGACTCCACCCAGAATTCCTGGTCTTTTTGACACCGGCT
CCTCCAATTGTGGTGCCTCTGTCTACTGCCAGAGCCAGGCTGCACCACTCCTCCGTTCAACCC
CAGCGAGTCGTCCACCTACTCCACCAATGGGCAGACCTTCTCCCTGCAGTATGGCAGTGGCAGCCTCACC
GGCTTCTTTGGCTATGACACCCTGACTGTCCAGAGCATCCAGGTCCCAACCAAGGAGTTCGGCTTGAAGT
AGAATGAGCCTGGTACCAACTTCGTCTATGCGCAGTTTGTGGCAGTATGGGCTGGCCTACCCTGCTCT
GTCCGTGGATGAGGCCACCACAGCTATGCAGGGCATGGTGCAGGAGGGCGCCCTCACCAGCCCCGTCTTC
AGCGTCTACCTCAGCAACCAGCAGGGCTCCAGCGGGGAGCGGTTGTCTTTGGGGTGTGGATAGCAGCC
TGTACACGGGGCAGATCTACTGGCGCCTGTCAACCAGGAATCTACTGGCAGATTGGCATTGAAGATT
CCTCATCGGGCCAGGCTCCGGCTGGTGTCTGAGGGTTGCCAGGCCATCGTGGACACAGGCACCTCT
CTGCTCACTGTGCCCCAGCAGTACATGAGTGTCTTCTGCAGGCCACAGGGGCCAGGAGGATGAGTATG
GACAGTTTCTCGTGAATGTAACAGCATTGAGAACTGCCCCAGTTGACCTTCATCATCAATGGTGTGGA
GTTCCCTCTGCCACCTTCTCCTATATCTCAGTAACAACGGCTACTGCACCGTGGGAGTCGAGCCACC
TACCTGTCTCCAGAACGGCCAGCCCCTGTGGATCCTCGGGATGTCTTCTCAGGTCCTACTATTCCG
TCTACGACTTGGGCAACAACAGAGTAGGCTTTGCCACTGCCGCC

ACGGTACGGGGCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAATGATATCCTGGATT
ACAAGGATGACGACGATAAGGTTTAA



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Protein Sequence: >RC210051 protein sequence
Red=Cloning site Green=Tags(s)

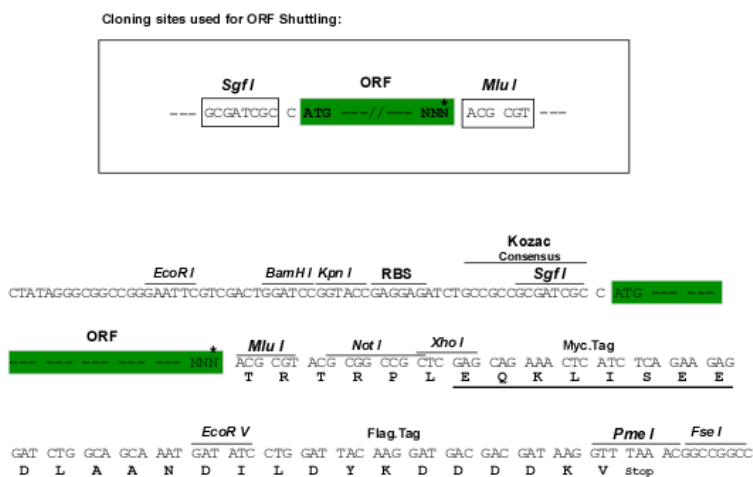
MKWMVVVLVCLQLLEAAVVKVPLKFKSIRETMKEKLLGEFLRTHKYDPAWKYRFGDLSVTYEPMAYMD
 AAYFGEISIGTPPQNFLVLFDTGSSNLWVPSVYCQSQACTSHSRFNPSSESSTYSTNGQTFSLQYGSGLT
 GFFGYDTLTVQSIQVNPQEFGLSENEPGTNFVYAQFDGIMGLAYPALSVDEATTAMQGMVQEGAL TSPVF
 SVYLSNQQGS SGGAVVFGVDSSLYTGQIYWAPVTQEL YWQIGIEEFLIGGQASGWCSEGCQAIIVDTGTS
 LLTVPQQYMSALLQATGAQEDEYGOFLVNCNSIQNLPSLTFIINGVEFPLPPSSYILSNNGYCTVGVEPT
 YLSSQNGQPLWILGDVFLRSYYSYVDLGNRVGFATAA

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6543_g02.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



* The last codon before the Stop codon of the ORF

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: 1392 bp

RefSeq ORF: 1167 bp

Locus ID: 5225

UniProt ID: [P20142](#)

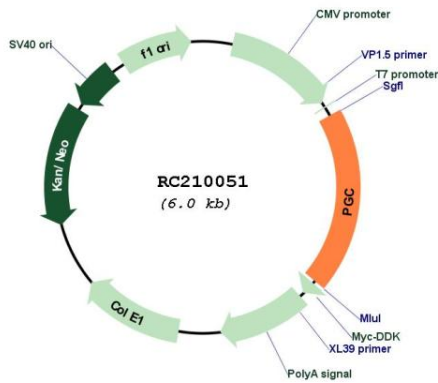
Cytogenetics: 6p21.1

Protein Families: Protease, Secreted Protein

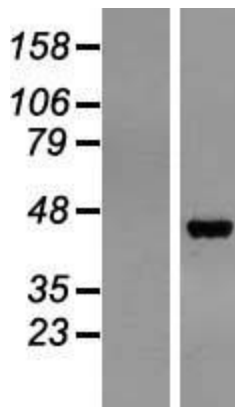
MW: 42.4 kDa

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]

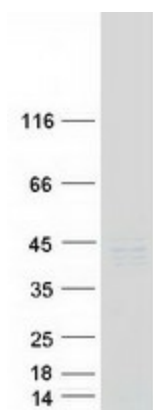
Product images:



Circular map for RC210051



Western blot validation of overexpression lysate (Cat# [LY419201]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC210051 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PGC protein (Cat# [TP310051]). The protein was produced from HEK293T cells transfected with PGC cDNA clone (Cat# RC210051) using MegaTran 2.0 (Cat# [TT210002]).