

Product datasheet for RC214837

PGPEP1 (NM_017712) Human Tagged ORF Clone

Product data:

Product Type: Expression Plasmids
Product Name: PGPEP1 (NM_017712) Human Tagged ORF Clone
Tag: Myc-DDK
Symbol: PGPEP1
Synonyms: PAP-I; Pcp; PGI; PGP; PGP-I; PGPI
Mammalian Cell Selection: Neomycin
Vector: pCMV6-Entry (PS100001)
E. coli Selection: Kanamycin (25 ug/mL)
ORF Nucleotide Sequence: >RC214837 representing NM_017712
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGCCGGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGATCGCC**

ATGGAGCAGCCGAGGAAGGCGGTGGTAGTGACGGGATTTGGCCCTTTGGGGAACACACCGTGAACGCCA
 GTTGGATTGCAGTTCAGGAGCTAGAAAAGCTAGGCCTTGGCGACAGCGTGGACCTGCATGTGTACGAGAT
 TCCGGTTGAGTACCAAACAGTCCAGAGACTCATCCCCGCCCTGTGGGAGAAGCACAGTCCACAGCTGGT
 GTGCATGTGGGGGTGTCAGGCATGGCGACCACAGTCACACTGGAGAAATGTGGACACAACAAGGGCTACA
 AGGGGCTGGACAACCTGCCGCTTTTGCCCGGCTCCCAGTCTGCGTGGAGGACGGGCCTGAAAGCATTGA
 CTCCATCATCGACATGGATGCTGTGTGCAAGCGAGTCACCACGTTGGGCCTGGATGTGTCGGTGACCATC
 TCGCAGGATGCCGGCAGATATCTCTGCGACTTTACCTACTACACCTCTTTGTACCAGAGTCACGGTCGAT
 CAGCCTTCGTCCAGTGCCTCCACTGGGGAAGCCGTACAACGCGGACCAGCTGGGCAGGGCACTGAGAGC
 CATCATTGAGGAGATGTTGGACCTCTGGAGCAGTCAGAGGGCAAATCAACTATTGCCACAACAC

ACGCGTACGCGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC214837 representing NM_017712
 Red=Cloning site Green=Tags(s)

MEQPRKAVVVTGFGPFGEHTVNASWIAVQELEKLGSDVLDHVVEIPVEYQTVQRLIPALWEKHSPQLV
 VHVGVSGMATTVTLEKCGHNKGYKGLDNCRCFPGSQCCVEDGPESIDSIIDMDAVCKRVTTGLDVSVTI
 SQDAGRYLCDFTYYTSLYQSHGRSAFVHVPLGKPYNADQLGRALRAIEEMLDLLEQSEGKINYCHKH

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

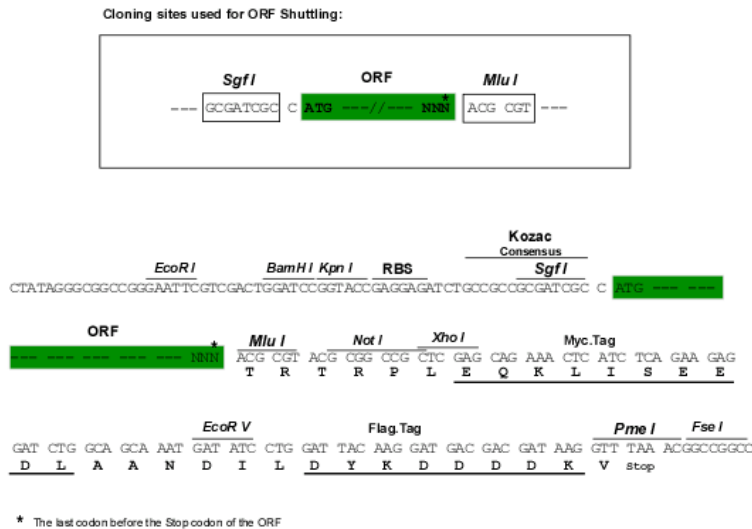


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Chromatograms: https://cdn.origene.com/chromatograms/mg3394_c04.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



ACCN: NM_017712

ORF Size: 627 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.

Note: Plasmids are not sterile. For experiments where strict sterility is required, filtration with 0.22um filter is required.

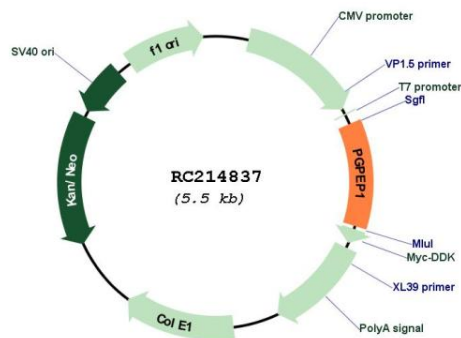
RefSeq: [NM_017712.4](#)

RefSeq Size: 2239 bp

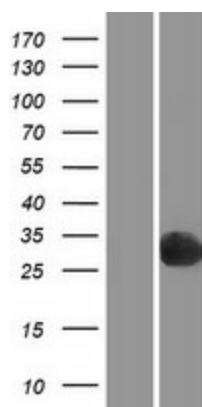
RefSeq ORF: 630 bp
Locus ID: 54858
UniProt ID: [Q9NXJ5](#)
Cytogenetics: 19p13.11
Protein Families: Druggable Genome, Protease
MW: 23 kDa

Gene Summary: The gene encodes a cysteine protease and member of the peptidase C15 family of proteins. The encoded protein cleaves amino terminal pyroglutamate residues from protein substrates including thyrotropin-releasing hormone and other neuropeptides. Expression of this gene may be downregulated in colorectal cancer, while activity of the encoded protein may be negatively correlated with cancer progression in colorectal cancer patients. Activity of the encoded protease may also be altered in other disease states including in liver cirrhosis, which is associated with reduced protease activity, and in necrozoospermia, which is associated with elevated protease activity. [provided by RefSeq, Jul 2016]

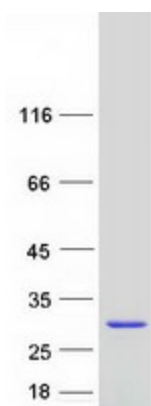
Product images:



Circular map for RC214837



Western blot validation of overexpression lysate (Cat# [LY413619]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC214837 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PGPEP1 protein (Cat# [TP314837]). The protein was produced from HEK293T cells transfected with PGPEP1 cDNA clone (Cat# RC214837) using MegaTran 2.0 (Cat# [TT210002]).