

Product datasheet for **RC206582**

Protein C (PROC) (NM_000312) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Protein C (PROC) (NM_000312) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Protein C
Synonyms:	APC; PC; PROC1; THPH3; THPH4
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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ORF Nucleotide Sequence:

>RC206582 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGCATCGCC**

ATGTGGCAGCTCACAAAGCCTCTGCTGTTCTGTTGGCCACCTGGGAATTTCCGGCACACCAGCTCCTCTTG
 ACTCAGTGTCTCCAGCAGCGAGCGTGCCACCCAGGTGCTGCGGATCCGCAAACGTGCCAACTCCTTCT
 GGAGGAGCTCCGTACAGCAGCCTGGAGCGGGAGTGCATAGAGGAGATCTGTGACTTCGAGGAGGCCAAG
 GAAATTTTCCAAAATGTGGATGACACACTGGCCTTCTGGTCCAAGCACGTGACGGTGACCAGTGGTTGG
 TCTTGCCCTTGGAGCACCCGTGCGCCAGCCTGTGCTGCGGGCACGGCACGTGCATCGACGGCATCGGCAG
 CTTCAGCTGCGACTGCCGACGGCTGGGAGGGCCGCTTCTGCCAGCGGAGGTGAGCTTCTCAATTGC
 TCTCTGGACAACGGCGGTGCACGCATTACTGCCTAGAGGAGTGGGCTGGCGGGCTGTAGCTGTGCGC
 CTGGCTACAAGCTGGGGACGACCTCCTGCAGTGTACCCCGCAGTGAAGTTCCTTGTGGGAGGCCCTG
 GAAGCGGATGGAGAAGAAGCGCAGTCACCTGAAACGAGACACAGAAGACCAAGAAGACCAAGTAGATCCG
 CGGCTCATTGATGGGAAGATGACCAGGCGGGGAGACAGCCCTGGCAGGTGGTCCCTGCTGGACTCAAAGA
 AGAAGCTGGCCTGCGGGGACGTGCTCATCCACCCCTCCTGGGTGCTGACAGCGGCCCACTGCATGGATGA
 GTCCAAGAAGCTCCTTGTGAGGCTTGGAGAGTATGACCTGCGGGCTGGGAGAAGTGGGAGCTGGACCTG
 GACATCAAGGAGGTCTTCGTCCACCCCACTACAGCAAGAGCACCACCGACAATGACATCGCACTGCTGC
 ACCTGGCCAGCCCGCCACCCCTCTCGCAGACCATAGTGCCCATCTGCCTCCCGGACAGCGGCCTTGAGA
 GCGCGAGCTCAATCAGGCCGGCCAGGAGACCCTCGTGACGGGCTGGGGCTACCACAGCAGCCGAGAGAAG
 GAGGCCAAGAGAAACCGCACCTTCGTCTCAACTTCATCAAGATTCCTGGTCCCGCACAAATGAGTGCA
 GCGAGGTCATGAGCAACATGGTGTCTGAGAACATGCTGTGTGCGGGCATCCTCGGGACCGGCAGGATGC
 CTGCGAGGGCGACAGTGGGGGGCCATGGTCGCCCTCCTTCCACGGCACCTGGTTCCTGGTGGGCCTGGTG
 AGCTGGGGTGGGCTGTGGGCTCCTTCAAACTACGGCGTTTACACAAAGTCAGCCGCTACCTCGACT
 GGATCCATGGGCACATCAGAGACAAGGAAGCCCCCAGAAGAGCTGGGCACCT

ACGCGTACGCGGGCCGCTCGAGCAGAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence:

>RC206582 protein sequence
 Red=Cloning site Green=Tags(s)

MWQLTSLLLFVATWGISGTPAPLDSVFSSESAHQVLRIRKRANSFLEELRHSSLERECIEEICDFEAK
 EIFQNVDLAFWSKHVDGQCLVPLEHPCASLCCGHGTCIDGIGSFSCDCRSWEGRFQREVSFLNC
 SLDNNGCETHYCLEEVGWRRCSCAPGYKLGDDLLQCHPAVKFPCGRPWKMEKKRSHLKRDTEDQEDQVDP
 RLIDGKMTRRGDSWPQVLLDSKLLACGAVLIHPSWVLTAAHMCDESKLLVRLGEYDLRRWEKWLDEL
 DIKEVFPVHPNYSKSTTDNDIALHLAQPATLSQTIVPICLPDSGLAERELNQAGQETLVTGWGYHSSREK
 EAKRNRTFVLFNFIKIPVPHNECSEVMSNMVSENMLCAGILGDRQDACEGDSGGPMVASFHGTWFLVGLV
 SWGEGCLLHNYGVYTKVSRYLWDWIHGHIRDKEAPQKSWAP

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms:

https://cdn.origene.com/chromatograms/mk6017_a06.zip

Restriction Sites:

Sgfl-Mlul

Cloning Scheme:


ACCN: NM_000312

ORF Size: 1383 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_000312.4](#)

RefSeq Size: 1790 bp

RefSeq ORF: 1386 bp

Locus ID: 5624

UniProt ID: [P04070](#)

Cytogenetics: 2q14.3

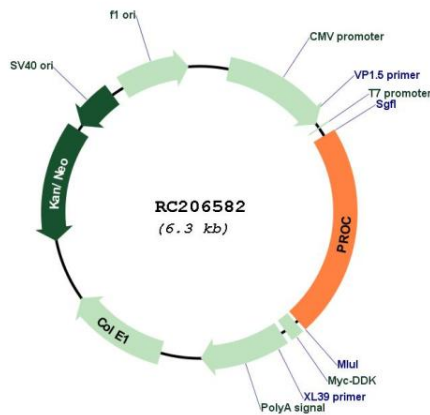
Protein Families: Druggable Genome, Protease

Protein Pathways: Complement and coagulation cascades

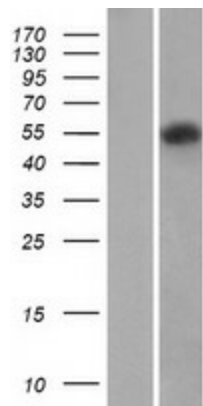
MW: 52.1 kDa

Gene Summary: This gene encodes a vitamin K-dependent plasma glycoprotein. The encoded protein is cleaved to its activated form by the thrombin-thrombomodulin complex. This activated form contains a serine protease domain and functions in degradation of the activated forms of coagulation factors V and VIII. Mutations in this gene have been associated with thrombophilia due to protein C deficiency, neonatal purpura fulminans, and recurrent venous thrombosis.[provided by RefSeq, Dec 2009]

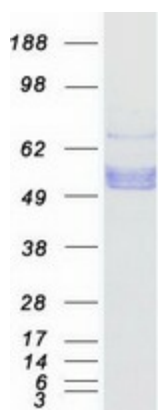
Product images:



Circular map for RC206582



Western blot validation of overexpression lysate (Cat# [LY400117]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC206582 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PROC protein (Cat# [TP306582]). The protein was produced from HEK293T cells transfected with PROC cDNA clone (Cat# RC206582) using MegaTran 2.0 (Cat# [TT210002]).