

Product datasheet for **RC202073**

Protein S (PROS1) (NM_000313) Human Tagged ORF Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Protein S (PROS1) (NM_000313) Human Tagged ORF Clone
Tag:	Myc-DDK
Symbol:	Protein S
Synonyms:	PROS; PS21; PS22; PS23; PS24; PS25; PSA; THPH5; THPH6
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-Entry (PS100001)
E. coli Selection:	Kanamycin (25 ug/mL)



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**ORF Nucleotide
Sequence:**

>RC202073 ORF sequence
 Red=Cloning site Blue=ORF Green=Tags(s)

TTTTGTAATACGACTCACTATAGGGCGGCCGGAATTCGTCGACTGGATCCGGTACCGAGGAGATCTGCC
 GCC**CGGATCGCC**

ATGAGGGTCTGGGTGGGCGCTGCGGGGCGCTGCTGGCGTGTCTCCTCCTAGTGCTTCCCGTCTCAGAGG
 CAAACTTTTTGTCAAAGCAACAGGCTTCACAAGTCTGGTTAGGAAGCGTCGTGCAAATCTTTACTTGA
 AGAAACCAAACAGGGTAATCTTGAAAGAGAATGCATCGAAGAAGTGTGCAATAAAGAAGAAGCCAGGGAG
 GTCTTTGAAAATGACCCGAAACGGATTATTTTTATCCAAAATACTTAGTTTGTCTTCGCTCTTTTCAA
 CTGGGTTATTCAGTGTGCACGTCACTCAACTAATGCTTATCCTGACCTAAGAAGCTGTGCAATGCCAT
 TCCAGACCAGTGTAGTCTCTGCCATGCAATGAAGATGGATATATGAGCTGCAAAGTGGAAAAGCTTCT
 TTTACTTGCAGTGTAAACCAGGTTGGCAAGGAGAAAAGTGTGAATTTGACATAAATGAATGCAAAGATC
 CCTCAAATATAAATGGAGGTTGCAGTCAAATTTGTGATAATACACCTGGAAGTTACCACTGTTCTGTAA
 AAATGGTTTTTGTATGCTTTCAAATAAGAAAGATTGTAAGATGTGGATGAATGCTCTTTGAAGCCAAGC
 ATTTGTGGCACAGCTGTGTGCAAGAACATCCAGGAGATTTTGAATGTGAATGCCCGAAGGCTACAGAT
 ATAATCTCAAATCAAAGTCTTGTGAAGATATAGATGAATGCTCTGAGAACATGTGTGCTCAGCTTTGTGT
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 AGCAGTTTGCAGGGGTTGTTTTATTTAAAATTCGTTTGCCAGAAATCAGCAGATTTTTCAGCAGAATT
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 CTGATTGCACTTCGTGGTGGAAAGATTGAAGTTCAGCTTAAGAATGAACATACATCCAAAATCACAACCTG
 GAGGTGATGTTATTAATAATGGTCTATGGAATATGGTGTCTGTGGAAGAATTAGAACATAGTATTAGCAT
 TAAAATAGCTAAAGAAGCTGTGATGGATATAAATAAACCTGGACCCCTTTTTAAGCCGAAAATGGATTG
 CTGAAAACCAAAGTATACTTTGCAGGATTCCTCGAAAAGTGGAAAAGTGAACCTATAAACCGATTAACC
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 TCAAGAAAAACAAAATAAGCATTGCCTGGTTACTGTGGAGAAGGGCTCCTACTATCCTGGTTCTGGAATT
 GCTCAATTTACATAGATTATAAATGTATCCAGTGTGAGGGTTGGCATGAAATGTGACCTTGAATA
 TTCGTCATCCACGGGCACTGGTGTATGCTTGCCTTGGTTTCTGGTAACAACACAGTGCCTTTGCTGT
 GTCCTTGGTGGACTCCACCTCTGAAAAATCACAGGATTTCTGTTATCTGTTGAAAATACTGTAATATAT
 CGGATACAGGCCCTAAGTCTATGTTCCGATCAACAATCTCATCTGGAATTTAGAGTCAACAGAAACAATC
 TGGAGTTGTCGACACCCTTAAAATAGAAACCATCTCCATGAAGACCTTCAAAGACAACCTGCCGTCTT
 GGACAAAGCAATGAAAGCAAAAGTGGCCACATACCTGGGTGGCCTTCCAGATGTTCCATTAGTCCACA
 CCAGTGAATGCCTTTTATAATGGCTGCATGGAAGTGAATTAATGGTGTACAGTTGGATCTGGATGAAG
 CCATTTCTAAACATAATGATATTAGAGCTCACTCATGTCCATCAGTTTGGAAAAAGACAAAGAAATCT

ACGCGTACGCGGGCCGCTCGAGCAGAAACTCATCTCAGAAGAGGATCTGGCAGCAAATGATATCCTGGATT
 ACAAGGATGACGACGATAAGGTTTAA

Protein Sequence: >RC202073 protein sequence
 Red=Cloning site Green=Tags(s)

MRVLGGRCGALLACLLLVLPVSEANFLSKQQASQVLVRKRANSLLEETKQGNLERECIEELCNKEEARE
 VFENDPETDYFYPKYLVCLRSFQTGLFTAARQSTNAYPDLRSCVNAIPDQCSPLPCNEDGYMSCKDGGKAS
 FTCTCKPGWQGEKCEFDINECKDPSNINGGCSQICDNTPGSYHCCKNGFVMLSNKKDCKDVDECSLKPS
 ICGTAVCKNIPGDFECECEPEGYRYNLKSKSCEDIDECSENMAQLCVNYPGGYTCYCDGKKGFKLAQDQK
 SCEVVSVCLPLNLDTKYELLYLAEQFAGVVLYLKFRLPEISRFSAEFDFRTYDSEGVILYAESIDHSAWL
 LIALRGGKIEVQLKNEHTSKITTTGGDVINNGLWNMVSVEELEHSISIKIAKEAVMDINKPGLFKPENGL
 LETKVYFAGFPRKVESELIKPINPRLDGCIRSWNLKQAGSIIQEKQNKHCLVTVEKGSYYPGSGI
 AQFHIDYNNVSSAEGWHVNVTLNIRPSTGTGVMALVSGNNTVPFAVSLVDSTSEKSDILLVENTVIY
 RIQALSLCSDQQSHLEFRVNRNLELSTPLKIETISHEDLQRQLAVLDKAMKAKVATYLGGLPDVPFSAT
 PVNAFYNGCMEVNINGVQLDLDEAISKHNDIRAHSCPSVWKKTKNS

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Chromatograms: https://cdn.origene.com/chromatograms/mk6139_g05.zip

Restriction Sites: SgfI-MluI

Cloning Scheme:



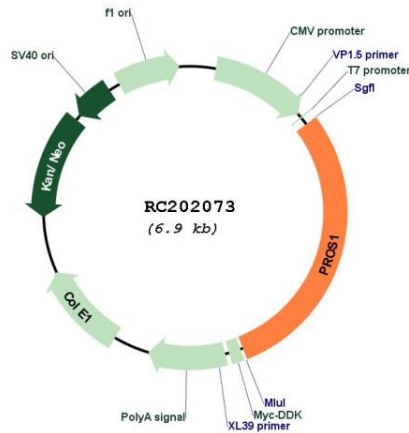
ACCN: NM_000313

ORF Size: 2028 bp

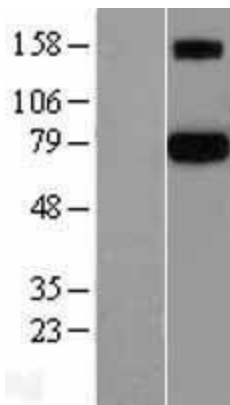
OTI Disclaimer:	Due to the inherent nature of this plasmid, standard methods to replicate additional amounts of DNA in E. coli are highly likely to result in mutations and/or rearrangements. Therefore, OriGene does not guarantee the capability to replicate this plasmid DNA. Additional amounts of DNA can be purchased from OriGene with batch-specific, full-sequence verification at a reduced cost. Please contact our customer care team at custsupport@origene.com or by calling 301.340.3188 option 3 for pricing and delivery.
	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:	<ol style="list-style-type: none"> 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_000313.4
RefSeq Size:	3595 bp
RefSeq ORF:	2031 bp
Locus ID:	5627
UniProt ID:	P07225
Cytogenetics:	3q11.1
Domains:	GLA, LamG, EGF_CA, EGF, EGF
Protein Families:	Druggable Genome, Secreted Protein
Protein Pathways:	Complement and coagulation cascades
MW:	75.1 kDa

Gene Summary:

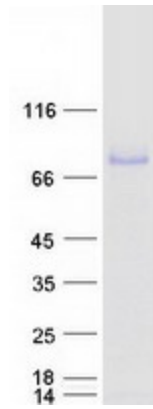
This gene encodes a vitamin K-dependent plasma protein that functions as a cofactor for the anticoagulant protease, activated protein C (APC) to inhibit blood coagulation. It is found in plasma in both a free, functionally active form and also in an inactive form complexed with C4b-binding protein. Mutations in this gene result in autosomal dominant hereditary thrombophilia. An inactive pseudogene of this locus is located at an adjacent region on chromosome 3. Alternative splicing results in multiple transcript variants encoding different isoforms that may undergo similar processing to generate mature protein. [provided by RefSeq, Oct 2015]

Product images:


Circular map for RC202073



Western blot validation of overexpression lysate (Cat# [LY400118]) using anti-DDK antibody (Cat# [TA50011-100]). Left: Cell lysates from untransfected HEK293T cells; Right: Cell lysates from HEK293T cells transfected with RC202073 using transfection reagent MegaTran 2.0 (Cat# [TT210002]).



Coomassie blue staining of purified PROS1 protein (Cat# [TP302073]). The protein was produced from HEK293T cells transfected with PROS1 cDNA clone (Cat# RC202073) using MegaTran 2.0 (Cat# [TT210002]).