

Product datasheet for **SC321484**

Prothrombin (F2) (NM_000506) Human Untagged Clone

Product data:

Product Type:	Expression Plasmids
Product Name:	Prothrombin (F2) (NM_000506) Human Untagged Clone
Tag:	Tag Free
Symbol:	Prothrombin
Synonyms:	PT; RPRGL2; THPH1
Mammalian Cell Selection:	Neomycin
Vector:	pCMV6-AC (PS100020)
E. coli Selection:	Ampicillin (100 ug/mL)



[View online »](#)

Fully Sequenced ORF: >OriGene sequence for NM_000506.2
 GCTGACACACTATGGCGCACGTCCGAGGCTTGCAGCTGCCTGGCTGCCTGGCCCTGGCTG
 CCCTGTGTAGCCTTGTGCACAGCCAGCATGTGTTCTGGCTCCTCAGCAAGCACGGTTCG
 TGCTCCAGCGGGTCCGGCGAGCCAACACCTTCTGGAGGAGGTGCGCAAGGGCAACTGG
 AGCGAGAGTGCCTGGAGGAGACGTGCAGCTACGAGGAGGCCTTCGAGGCTCTGGAGTCT
 CCACGGCTACGGATGTGTTCTGGCCAAGTACACAGCTTGTGAGACAGCGAGGACGCCTC
 GAGATAAGCTTGTGCATGTCTGGAAGGTAAGTGTGCTGAGGGTCTGGGTACGAACCTACC
 GAGGGCATGTGAACATCACCCGGTCAGGCATTGAGTGCCAGCTATGGAGGAGTCGCTACC
 CACATAAGCCTGAAATCAACTCCACTACCCATCCTGGGGCCGACCTACAGGAGAATTTCT
 GCCGCAACCCCGACAGCAGCACCACGGGACCCTGGTGCTACACTACAGACCCACCGTGA
 GGAGGCAGGAATGCAGCATCCCTGTCTGTGGCCAGGATCAAGTCACTGTAGCGATGACTC
 CACGCTCCGAAGGCTCCAGTGTGAATCTGTACCTCCATTGGAGCAGTGTGTCCCTGATC
 GGGGGCAGCAGTACCAGGGGCGCTGGCGGTGACCACACATGGGCTCCCTGCCTGGCT
 GGGCCAGCGCACAGGCCAAGGCCCTGAGCAAGCACCAGGACTTCAACTCAGCTGTGCAGC
 TGGTGGAGAACTTCTGCCCAACCCAGACGGGGATGAGGAGGGCGGTGGTGCTATGTGG
 CCGGGAAGCCTGGCGACTTTGGGTACTGCGACCTCAACTATTGTGAGGAGCCGTGGAGG
 AGGAGACAGGAGATGGGCTGGATGAGGACTCAGACAGGGCCATCGAAGGGCGTACCGCCA
 CCAGTGAGTACCAGACTTTCTTCAATCCGAGGACCTTTGGCTCGGGAGAGGCAGACTGTG
 GGCTGCGACCTCTGTTTCGAGAAGAAGTCGCTGGAGGACAAAACCGAAAGAGAGCTCCTGG
 AATCCTACATCGACGGGCGCATTGTGGAGGGCTCGGATGCAGAGATCGGCATGTCACCTT
 GGCAGGTGATGCTTTCCGGAAGAGTCCCAGGAGCTGCTGTGTGGGGCCAGCCTCATCA
 GTGACCGCTGGTCTCACCCGCCACTGCCTCCTGTACCCGCCCTGGGACAAGAACT
 TCACCGAGAATGACCTTCTGGTGCGCATTGGCAAGCACTCCCGCACCAGGTACGAGCGAA
 ACATTGAAAAGATATCCATGTTGAAAAGATCTACATCCACCCAGGTACAACCTGGCGGG
 AGAACCTGGACCGGACATTGCCCTGATGAAGCTGAAGAAGCCTGTTGCCTTCAGTGACT
 ACATTCACCTGTGTGTCTGCCGACAGGGAGACGGCAGCCAGCTTGTCCAGGCTGGAT
 ACAAGGGGCGGGTACAGGCTGGGGCAACCTGAAGGAGACGTGGACAGCCAACGTTGGTA
 AGGGGCAGCCAGTGTCTGCAGGTGGTGAACCTGCCATTGTGGAGCGGCCGGTCTGCA
 AGGACTCCACCCGGATCCGCATCACTGACAACATGTTCTGTGCTGGTTACAAGCCTGATG
 AAGGGAAACGAGGGGATGCCTGTGAAGGTGACAGTGGGGGACCCTTTGTCATGAAGAGCC
 CCTTTAACACCCTGGTATCAAATGGGCATCGTCTCATGGGGTGAAGGCTGTGACCGGG
 ATGGGAAATATGGCTTCTACACACATGTGTTCCGCCTGAAGAAGTGGATACAGAAGGTCA
 TTGATCAGTTTGGAGAGTAGGGGGCCACTCATATTCTGGGCTCCTGGAACCAATCCCGTG
 AAAGAATTATTTTGTGTTTCTAAAACATATGGTCCCAATAAAGTGACTCTCAGCGAGC
 AAAAAAAAAAAAAAAAAA

Restriction Sites: Please inquire

ACCN: NM_000506

OTI Disclaimer: Our molecular clone sequence data has been matched to the reference identifier above as a point of reference. Note that the complete sequence of our molecular clones may differ from the sequence published for this corresponding reference, e.g., by representing an alternative RNA splicing form or single nucleotide polymorphism (SNP).

OTI Annotation: This TrueClone is provided through our Custom Cloning Process that includes sub-cloning into OriGene's pCMV6 vector and full sequencing to provide a non-variant match to the expected reference without frameshifts, and is delivered as lyophilized plasmid DNA.

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_000506.2](#), [NP_000497.1](#)

RefSeq Size: 1997 bp

RefSeq ORF: 1869 bp

Locus ID: 2147

UniProt ID: [P00734](#)

Cytogenetics: 11p11.2

Domains: KR, GLA, Tryp_SPC

Protein Families: Druggable Genome, Protease, Secreted Protein

Protein Pathways: Complement and coagulation cascades, Neuroactive ligand-receptor interaction, Regulation of actin cytoskeleton

Gene Summary: This gene encodes the prothrombin protein (also known as coagulation factor II). This protein is proteolytically cleaved in multiple steps to form the activated serine protease thrombin. The activated thrombin enzyme plays an important role in thrombosis and hemostasis by converting fibrinogen to fibrin during blood clot formation, by stimulating platelet aggregation, and by activating additional coagulation factors. Thrombin also plays a role in cell proliferation, tissue repair, and angiogenesis as well as maintaining vascular integrity during development and postnatal life. Peptides derived from the C-terminus of this protein have antimicrobial activity against *E. coli* and *P. aeruginosa*. Mutations in this gene lead to various forms of thrombosis and dysprothrombinemia. Rapid increases in cytokine levels following coronavirus infections can dysregulate the coagulation cascade and produce thrombosis, compromised blood supply, and organ failure. [provided by RefSeq, May 2020]
Transcript Variant: This variant (1) represents the longer transcript and encodes the longer isoform (1).