

Product datasheet for **TP308589L**

Prothrombin (F2) (NM_000506) Human Recombinant Protein

Product data:

Product Type: Recombinant Proteins

Description: Recombinant protein of human coagulation factor II (thrombin) (F2), 1 mg

Species: Human

Expression Host: HEK293T

Expression cDNA >RC208589 protein sequence

Clone or AA **Red**=Cloning site **Green**=Tags(s)

Sequence:

MAHVRGLQLPGCLALAALCSLVHSQHVFAPQQARSLLQVRANTFLEEVRKGNLERECVEETCSYEEA
FEALESSTATDVFWAKYTACETARTPRDKLAACLEGNCAEGLGTNYRGHVNITRSGIEQLWRSRYPHKP
EINSTTHPGADLQENFCRNPDSTTGPWCYTTDPTVRRQECIPVCGQDQVTVAMTPRSEGSSVNLSPPL
EQCVPRGQQYQGR LAVTTHGLPCLAWASAKALSKHQDFNSAVQLVENFCRNPDGDEEGAWCYVAGKP
GDFGYCDLNYCEEAVEEETGDGLDESDRAIEGRTATSEYQTFNPRTFSGEADCGLRPLFEKKSLEDK
TERELLESYIDGRIVEGSDAEIGMSPWQVMLFRKSPQELLCGASLISDRWVLTAAHCLLYPPWDKNFEN
DLLVRIGKHSRTRYERNIEKISMLEKIYIHPRYNWRENDRDIALMKLKKPVAFSYIHPVCLPDRETAA
SLLQAGYKGRVTGWGNLKETWTANVGKQPSVLQVVNLPIVERPVCKDSTRIRITDNMFCAGYKPDDEGKR
GDACEGDSGGPFVMKSPFNRRWYQMGIVSWGEGCDRDGKYGFYTHVFRLLKWKVIQKVIDQFGE

TRTRPLEQKLISEEDLAANDILDYKDDDDKV

Tag: C-Myc/DDK

Predicted MW: 67.5 kDa

Concentration: >0.05 µg/µL as determined by microplate BCA method

Purity: > 80% as determined by SDS-PAGE and Coomassie blue staining

Buffer: 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol

Bioactivity: MS digestion standard (PMID:[29702392](https://pubmed.ncbi.nlm.nih.gov/29702392/))

Preparation: Recombinant protein was captured through anti-DDK affinity column followed by conventional chromatography steps.

Note: For testing in cell culture applications, please filter before use. Note that you may experience some loss of protein during the filtration process.

Storage: Store at -80°C.



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Stability: Stable for 12 months from the date of receipt of the product under proper storage and handling conditions. Avoid repeated freeze-thaw cycles.

RefSeq: [NP_000497](#)

Locus ID: 2147

UniProt ID: [P00734](#)

RefSeq Size: 2018

Cytogenetics: 11p11.2

RefSeq ORF: 1866

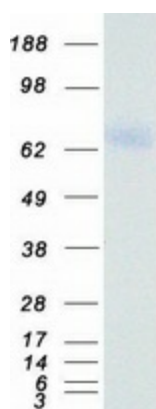
Synonyms: PT; RPRGL2; THPH1

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]

Protein Families: Druggable Genome, Protease, Secreted Protein

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

Product images:



Coomassie blue staining of purified F2 protein (Cat# [TP308589]). The protein was produced from HEK293T cells transfected with F2 cDNA clone (Cat# [RC208589]) using MegaTran 2.0 (Cat# [TT210002]).