

## Native Human F2 Protein, GMP Grade

### Product Information

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**Cat#**

F2-106THP

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**Common Name**

F2

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**Product Name**

Native Human F2 Protein, GMP Grade

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**Product Overview**

Native Human F2 Protein was purified from Human Plasma and was produced in an animal component free process under cGMP guidelines.

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**Description**

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.

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**Source**

Human Plasma

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**Species**

Human

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## Native Human F2 Protein, GMP Grade

### Molecular Mass

Not Available

### AA Sequence

MAHVRGLQLPGCLALAALCSLVHSQHVFAPQQARSLQRRVRRANTFLEEVKGNLERECVEETCSYEEAFE  
ALESSTATDVFwakYTACETARTPRDKLAACLEGNCAEGLGTNYRGHVNITRSGIECQLWRSRYPHKPEINSTT  
HPGADLQENFCRNPDSSTTGPWCYTDTPTVRRQECSPVCGQDQVTVAMTPRSEGSSVNLSPPLEQCVPDR  
GQQYQGR LAVTTHGLPCLAWASAAKALSKHQDFNSAVQLVENFCRNPDGDEEGVWCYVAGKPGDF  
GYCDLNYCEEAVEEETGDGLDESDRAIEGRTATSEYQTFNPRTFGSGEADCGLRPLFEKKSLEDKTERELLES  
YIDGRIVEGSDAEIGMSPWQVMLFRKSPQELLCGASLISDRWVLTAAHCLLYPPWDKNFTENDLLVRIGKHSRT  
RYERNIEKISMLEKIYIHPRYNWRENLDRIALMKLKKPVAFSDYIHPVCLPDRETAASLLQAGYKGRVTGWGNL  
KETWTANVGKGQPSVLQVVNLPIVERPVCKDSTRITDNMFCAGYKPDEGKRGDACEGDSGGPFV MKSP  
FNNRWYQMGIVSWGEGCDRDGKYGFYTHVRLKKWIKVIDQFGE

### Endotoxin

<0.001 EU/μg by the LAL method

### Applications

The product is indicated as an aid to hemostasis whenever oozing blood and minor bleeding from capillaries and small venules are accessible and control of bleeding by standard surgical techniques (such as suture, ligature, or cautery) is ineffective or impractical.

### Usage

Oozing blood and minor bleeding

### Gene Name

[F2 coagulation factor II \(thrombin\) \[Homo sapiens \(human\)\]](#)

### Official Symbol

[F2](#)

### Synonyms

F2; coagulation factor II (thrombin); prothrombin; serine protease; prothrombin B-chain; PT;



## Native Human F2 Protein, GMP Grade

THPH1;

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**GeneID**

[2147](#)

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**mRNA Refseq**

[NM\\_000506](#)

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**Protein Refseq**

[NP\\_000497](#)

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**MIM**

[176930](#)

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**UniProt ID**

[P00734](#)

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