

## Native Human Coagulation Factor II (thrombin)

**Cat. No.** F2-5285H    **Lot. No.** (See product label)

### SPECIFICATION

|                          |                                                                                                                                                                                                                                                                                                                               |
|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Product Overview</b>  | Native Human F2 was expressed in human plasma.                                                                                                                                                                                                                                                                                |
| <b>Species</b>           | Human                                                                                                                                                                                                                                                                                                                         |
| <b>Source</b>            | Human Plasma                                                                                                                                                                                                                                                                                                                  |
| <b>Description</b>       | F2 is proteolytically cleaved to form thrombin in the first step of the coagulation cascade which ultimately results in the stemming of blood loss. F2 also plays a role in maintaining vascular integrity during development and postnatal life. Mutations in F2 lead to various forms of thrombosis and dysprothrombinemia. |
| <b>Form</b>              | Liquid in 0.1 M NaH <sub>2</sub> PO <sub>4</sub> , pH 6.5.                                                                                                                                                                                                                                                                    |
| <b>Concentration</b>     | 5.0 mg/ml                                                                                                                                                                                                                                                                                                                     |
| <b>Molecular Weight</b>  | 34.3 kDa                                                                                                                                                                                                                                                                                                                      |
| <b>Specific Activity</b> | Determined using a fibrinogen clotting assay.                                                                                                                                                                                                                                                                                 |
| <b>Storage</b>           | Store in working aliquots at -20°C. Avoid repeated freeze-thaw cycles.                                                                                                                                                                                                                                                        |
| <b>Pathways</b>          | Angiopoietin receptor Tie2-mediated signaling; Blood Clotting Cascade; Cell surface interactions at the vascular wall; Class A/1 (Rhodopsin-like receptors); Common Pathway; Complement and Coagulation Cascades; Diabetes pathways; FOXA2 and FOXA3 transcription factor networks; Extrinsic Pathway; Formation of           |

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FibrinClot (Clotting Cascade); Hemostasis; Intrinsic Pathway; Regulation of actincytoskeleton; Selenium Pathway; Signal Transduction

## GENE INFORMATION

**Gene Name** F2 coagulation factor II (thrombin) [ Homosapiens ]

**Official Symbol** F2

**Synonyms** F2; coagulation factor II (thrombin); PT; prothrombin; serineprotease; OTTHUMP00000197117; OTTHUMP00000197118; OTTHUMP00000233661; prothrombin B-chain; EC 3.4.21.5; EC 3.4.21; Prothrombin; Coagulation factorII; Activation peptide fragment 1; Activation peptide fragment 2; Thrombinlight chain; Thrombin heavy chain

**Gene ID** 2147

**mRNA Refseq** NM\_000506

**Protein Refseq** NP\_000497

**MIM** 176930

**UniProt ID** P00734

**Chromosome Location** 11p11

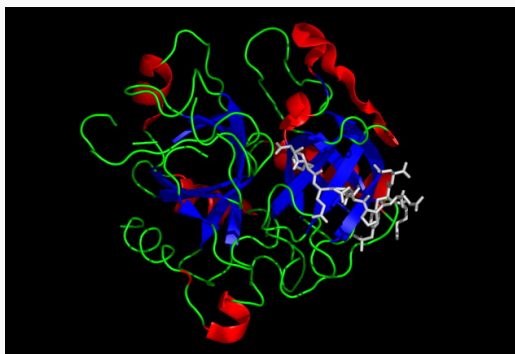
**Function** peptidaseactivity; protein binding; serine-type endopeptidase activity; heparin binding; calcium ion binding; growth factor activity; receptor binding; contributes toreceptor binging; thrombospondin receptor activity

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The structure of  
human thrombin in  
complex with the  
inhibitor hirudin.



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