

# Recombinant human Prothrombin/F2 Protein

Catalog No.: RP01742 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
human	2147	P00734

### Tags

C-His

### Synonyms

PT; THPH1; RPRGL2

## Product Information

Source	Purification
HEK293 cells	> 97% by SDS-PAGE.

### Endotoxin

&lt; 0.1EU/μg


### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

Coagulation Factor II Protein (FII, F2 Protein or Prothrombin) is proteolytically cleaved to form thrombin in the first step of the coagulation cascade which ultimately results in the stemming of blood loss. Coagulation Factor II Protein (FII, F2 Protein) also plays a role in maintaining vascular integrity during development and postnatal life. Prothrombin / Coagulation Factor II is activated on the surface of a phospholipid membrane that binds the amino end of prothrombin / Coagulation Factor II and factor Va and Xa in Ca-dependent interactions; factor Xa removes the activation peptide and cleaves the remaining part into light and heavy chains. The activation process starts slowly because factor V itself has to be activated by the initial, small amounts of thrombin.

## Basic Information

### Description

Recombinant human Prothrombin/F2 Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln25-Glu622) of human Prothrombin/F2 (Accession #NP\_000497.1.) fused with a 6×His tag at the C-terminus.

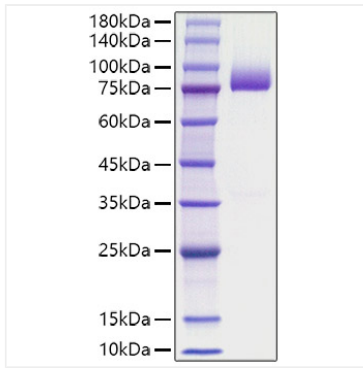
### Bio-Activity

### Storage

Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week. Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant human Prothrombin/F2 Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 70-85 kDa