

Prothrombin, Human Plasma recombinant protein
Coagulation factor II
Catalog # PBV11260r**Specification**

Prothrombin, Human Plasma recombinant protein - Product info

Primary Accession [P00734](#)
Calculated MW **72 kDa** **KDa**

Prothrombin, Human Plasma recombinant protein - Additional Info

Gene ID **2147**
Gene Symbol **F2**
Other Names
Coagulation factor II

Gene Source **Human**
Source **Human Plasma**
Assay&Purity **SDS-PAGE; ≥95%**
Assay2&Purity2 **N/A;**
Recombinant **No**
Target/Specificity
Prothrombin

Format
Liquid

Storage
-80°C; In 20 mM Tris-HCl, 0.1 M NaCl pH 7.4

Prothrombin, Human Plasma recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Prothrombin, Human Plasma recombinant protein - Images**Prothrombin, Human Plasma recombinant protein - Background**

Prothrombin is a vitamin K-dependent plasma protein which is synthesized in the liver. Prior to secretion into plasma, prothrombin undergoes post-translational modification by a vitamin

K-dependent carboxylase which converts ten specific glutamic acid residues to γ -carboxyglutamic acid (gla). Conversion to thrombin is a key step in the blood coagulation pathway and catalyzes the coagulation of fibrinogen. Clinically, cases of selective deficiency are rare, although, in cases of liver cirrhosis, prothrombin is decreased. During activation, prothrombin is cleaved at Arg271-Thr272 and at Arg320-Ser321 to a "pro" fragment (fragment 1.2) and thrombin, the latter of which is composed of two chains covalently linked by a disulfide bond. There is an additional thrombin feed-back cleavage at Arg284-Thr285 resulting in an additional 13 amino acids being removed from the mature thrombin "A" chain.

Prothrombin, Human Plasma recombinant protein - References

Degen S.J.F., et al. *Biochemistry* 26:6165-6177(1987).
Wang W., et al. *Haemophilia* 10:94-97(2004).
Ota T., et al. *Nat. Genet.* 36:40-45(2004).
Suzuki Y., et al. Submitted (APR-2005) to the EMBL/GenBank/DDBJ databases.
Degen S.J.F., et al. *Biochemistry* 22:2087-2097(1983).