

Prothrombin Rabbit pAb

CatalogNo: YT5126

Key Features

Host Species

- Rabbit

Reactivity

- Human, Mouse, Rat

Applications

- WB, IHC, IF, ELISA

MW

- 70kD (Observed)

Isotype

- IgG

Recommended Dilution Ratios

WB 1:500-1:2000

IHC: 1:100-300

ELISA 1:20000

IF 1:50-200

Storage

Storage*

-15°C to -25°C/1 year (Do not lower than -25°C)

Formulation

Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide.

Basic Information

Clonality

Polyclonal

Immunogen Information

Immunogen

Synthesized peptide derived from the Internal region of human Prothrombin. AA range 420-470

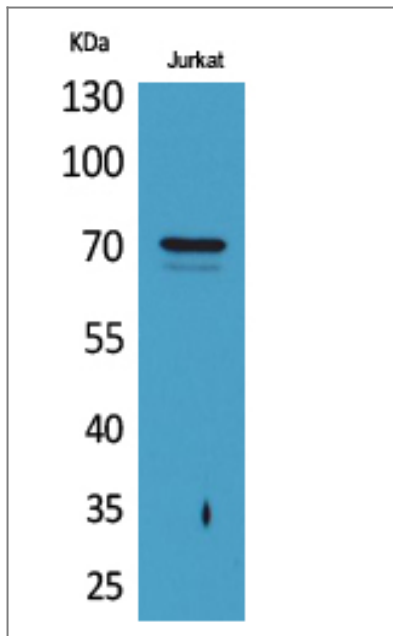
Specificity

Prothrombin Polyclonal Antibody detects endogenous levels of Prothrombin protein.

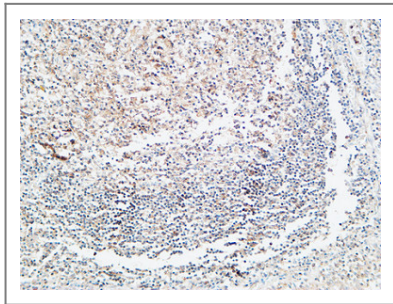
Target Information

Gene name	F2		
Protein Name	Prothrombin		
	Organism	Gene ID	UniProt ID
	Human	2147;	P00734;
	Mouse	14061;	P19221;
	Rat		P18292;
Cellular Localization	Secreted, extracellular space.		
Tissue specificity	Expressed by the liver and secreted in plasma.		
Function	<p>Catalytic activity:Selective cleavage of Arg- -Gly bonds in fibrinogen to form fibrin and release fibrinopeptides A and B.,Disease:Defects in F2 are the cause of various forms of dysprothrombinemia [MIM:176930].,Disease:Genetic variations in F2 may be a cause of susceptibility to ischemic stroke [MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the brain and resulting in loss of motor, sensory and/or cognitive function. Ischemic strokes, resulting from vascular occlusion, is considered to be a highly complex disease consisting of a group of heterogeneous disorders with multiple genetic and environmental risk factors.,Function:Thrombin, which cleaves bonds after Arg and Lys, converts fibrinogen to fibrin and activates factors V, VII, VIII, XIII, and, in complex with thrombomodulin, protein C. Functions in blood homeostasis, inflammation and wound healing.,miscellaneous:It is not known whether 1 or 2 smaller activation peptides, with additional cleavage after Arg-314, are released in natural blood clotting.,miscellaneous:Prothrombin is activated on the surface of a phospholipid membrane that binds the amino end of prothrombin and factors 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.,miscellaneous:The cleavage after Arg-198, observed in vitro, does not occur in plasma.,miscellaneous:Thrombin can itself cleave the N-terminal fragment (fragment 1) of the prothrombin, prior to its activation by factor Xa.,online information:Thrombin entry,pharmaceutical:The peptide TP508 also known as Chrysalin (Orthologic) could be used to accelerate repair of both soft and hard tissues.,PTM:The gamma-carboxyglutamyl residues, which bind calcium ions, result from the carboxylation of glutamyl residues by a microsomal enzyme, the vitamin K-dependent carboxylase. The modified residues are necessary for the calcium-dependent interaction with a negatively charged phospholipid surface, which is essential for the conversion of prothrombin to thrombin.,similarity:Belongs to the peptidase S1 family.,similarity:Contains 1 Gla (gamma-carboxy-glutamate) domain.,similarity:Contains 1 peptidase S1 domain.,similarity:Contains 2 kringle domains.,tissue specificity:Expressed by the liver and secreted in plasma.,</p>		

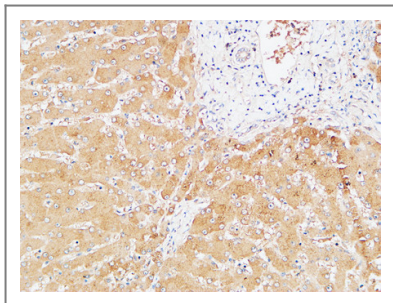
| Validation Data



Western Blot analysis of Jurkat cells using Prothrombin Polyclonal Antibody. Secondary antibody(catalog#:RS0002) was diluted at 1:20000



Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:200(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).



Immunohistochemical analysis of paraffin-embedded Human Liver. 1, Antibody was diluted at 1:200(4° overnight). 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 30min).

Contact information

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