
Product Name: Prothrombin Rabbit Polyclonal Antibody**Catalog #: APRab16534**

For research use only.

Summary

Description	Rabbit polyclonal Antibody
Host	Rabbit
Application	WB,IHC,ICC/IF,ELISA
Reactivity	Human,Mouse,Rat
Conjugation	Unconjugated
Modification	Unmodified
Isotype	IgG
Clonality	Polyclonal
Form	Liquid
Concentration	1mg/ml
Storage	Aliquot and store at -20°C (valid for 12 months). Avoid freeze/thaw cycles.
Shipping	Ice bags
Buffer	Liquid in PBS containing 50% glycerol, 0.5% protective protein and 0.02% New type preservative N.
Purification	Affinity purification

Application

Dilution Ratio	WB 1:500-1:2000,IHC 1:100-1:300,ICC/IF 1:50-1:200,ELISA 1:10000-1:20000
Molecular Weight	70kDa

Antigen Information

Gene Name	F2
Alternative Names	F2; Prothrombin; Coagulation factor II
Gene ID	2147.0
SwissProt ID	P00734
Immunogen	Synthesized peptide derived from the Internal region of human Prothrombin. AA range 420-470

Background

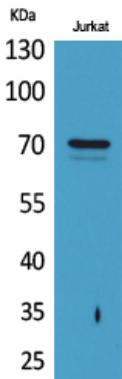
Coagulation factor II is proteolytically cleaved to form thrombin in the first step of the coagulation cascade which ultimately

results in the stemming of blood loss. F2 also plays a role in maintaining vascular integrity during development and postnatal life. Peptides derived from the C-terminus of this protein have antimicrobial activity against E. coli and P. aeruginosa. Mutations in F2 lead to various forms of thrombosis and dysprothrombinemia. Alternative splicing results in multiple transcript variants. [provided by RefSeq, Aug 2015],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.,

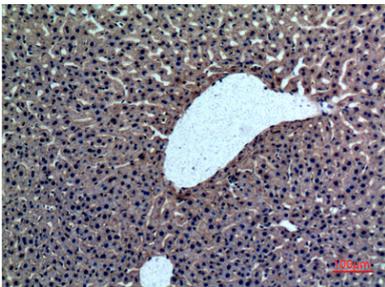
Research Area

Neuroactive ligand-receptor interaction;Complement and coagulation cascades;Regulates Actin and Cytoskeleton;

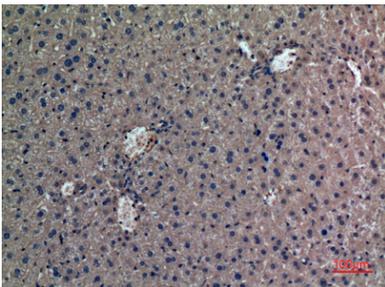
Image Data



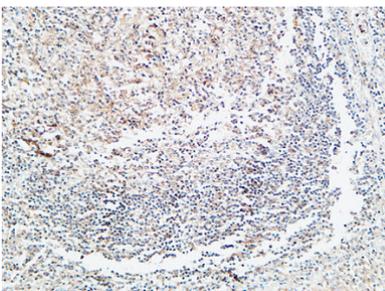
Western Blot analysis of Jurkat cells using Prothrombin Polyclonal Antibody..
Secondary antibody was diluted at 1:20000



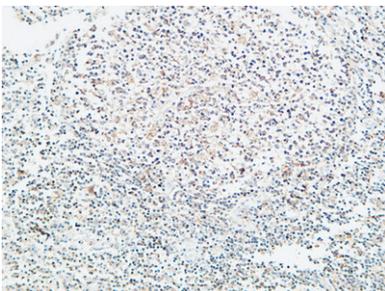
Immunohistochemical analysis of paraffin-embedded rat-liver, antibody was diluted at 1:100



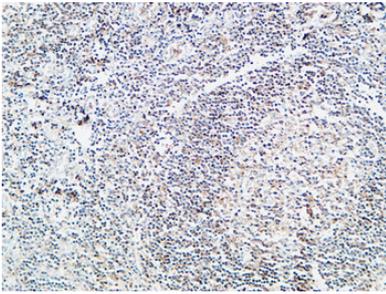
Immunohistochemical analysis of paraffin-embedded mouse-liver, antibody was diluted at 1:100



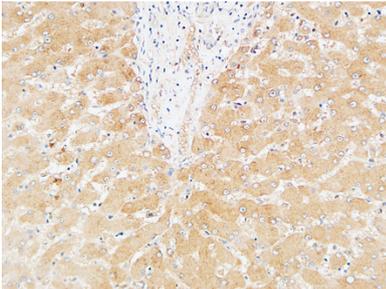
Immunohistochemical analysis of paraffin-embedded Human Amygdala. 1, Antibody was diluted at 1:200 (4°,overnight) . 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature, 30min) .



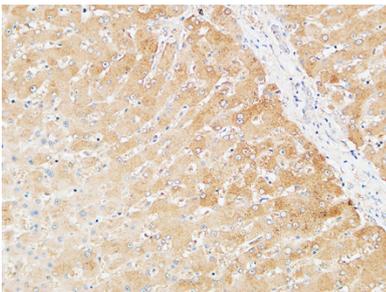
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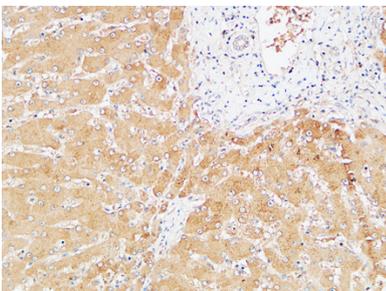
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Immunohistochemical analysis of paraffin-embedded Human Liver. 1, Antibody was diluted at 1:200 (4°,overnight) . 2, High-pressure and temperature EDTA, pH8.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200 (room temperature,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



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) .



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) .