



THRB (heavy chain, Cleaved-Ile364) rabbit pAb

Cat No.:ES20044

For research use only

Overview

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| Product Name | THRB (heavy chain, Cleaved-Ile364) rabbit pAb |
| Host species | Rabbit |
| Applications | WB;ELISA;IHC |
| Species Cross-Reactivity | Human;Mouse;Rat |
| Recommended dilutions | WB 1:500-2000;IHC-p 1:50-300; ELISA 2000-20000 |
| Immunogen | Synthesized peptide derived from human THRB (heavy chain, Cleaved-Ile364) |
| Specificity | This antibody detects endogenous levels of Human,Mouse,Rat THRB (heavy chain, Cleaved-Ile364, protein was cleaved amino acid sequence between 363-364) |
| Formulation | Liquid in PBS containing 50% glycerol, 0.5% BSA and 0.02% sodium azide. |
| Storage | Store at -20°C. Avoid repeated freeze-thaw cycles. |
| Protein Name | THRB (heavy chain, Cleaved-Ile364) |
| Gene Name | F2 |
| Cellular localization | Secreted, extracellular space. |
| Purification | The antibody was affinity-purified from rabbit antiserum by affinity-chromatography using epitope-specific immunogen. |
| Clonality | Polyclonal |
| Concentration | 1 mg/ml |
| Observed band | 28 63kD |
| Human Gene ID | 2147 |
| Human Swiss-Prot Number | P00734 |
| Alternative Names | Prothrombin (EC 3.4.21.5;Coagulation factor II) [Cleaved into: Activation peptide fragment 1; Activation peptide fragment 2; Thrombin light chain; Thrombin heavy chain] |
| Background | catalytic activity:Selective cleavage of Arg- -Gly bonds in fibrinogen to form fibrin and release fibrinopeptides A and B.,disease:Defects in F2 are |



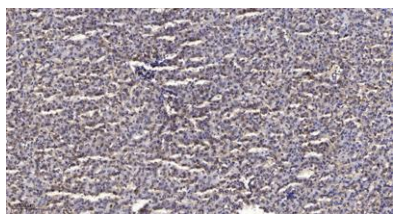


the cause of various forms of dysprothrombinemia [MIM:176930].,disease:Genetic variations in F2 may be a cause of susceptibility to ischemic stroke [MIM:601367]; also known as cerebrovascular accident or cerebral infarction. A stroke is an acute neurologic event leading to death of neural tissue of the 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.,



Immunohistochemical analysis of paraffin-embedded human liver cancer. 1, Antibody was diluted at 1:200(4° overnight). 2, Tris-EDTA,pH9.0 was used for antigen retrieval. 3,Secondary antibody was diluted at 1:200(room temperature, 45min).

