

## Product datasheet

# Anti-Thrombin antibody ab83981

★★★★☆ 3 Abreviews 1 References 5 Images

### Overview

|                            |  |
|----------------------------|--|
| <b>Product name</b>        | Anti-Thrombin antibody   |
| <b>Description</b>         | Rabbit polyclonal to Thrombin  |
| <b>Host species</b>        | Rabbit   |
| <b>Tested applications</b> | <b>Suitable for:</b> ICC/IF, IHC-P, IHC-Fr, WB   |
| <b>Species reactivity</b>  | <b>Reacts with:</b> Human<br><b>Predicted to work with:</b> Mouse, Rat, Sheep, Horse, Guinea pig, Cow, Cat, Dog, Pig    |
| <b>Immunogen</b>           | Synthetic peptide corresponding to a region within internal sequence amino acids 396 - 445 (ISDRWVL TAA HCLLYPPWDK NFTENDLLVR IGKHSRTRYE RNIEKISMLE) of human Thrombin (NP_000497).<br><a href="#">Run BLAST with ExPASy</a> <a href="#">Run BLAST with NCBI</a> |
| <b>Positive control</b>    | 721_B cell lysate  |

### Properties

|                             |  |
|-----------------------------|--|
| <b>Form</b>                 | Liquid   |
| <b>Storage instructions</b> | Shipped at 4°C. Upon delivery aliquot and store at -20°C. Avoid repeated freeze / thaw cycles. |
| <b>Storage buffer</b>       | Preservative: 0.09% Sodium azide<br>Constituents: 2% Sucrose, PBS                              |
| <b>Purity</b>               | Immunogen affinity purified  |
| <b>Purification notes</b>   | ab83981 is purified by a peptide affinity chromatography method.                               |
| <b>Clonality</b>            | Polyclonal   |
| <b>Isotype</b>              | IgG  |

### Applications

Our [Abpromise guarantee](#) covers the use of **ab83981** in the following tested applications.

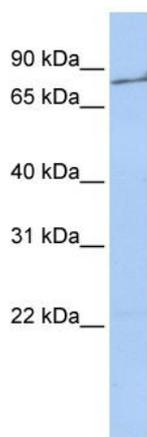
The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

| Application | Abreviews | Notes  |
|-------------|-----------|--|
| ICC/IF      |           | Use a concentration of 5 µg/ml.  |
| IHC-P       | ★★★★★     | Use a concentration of 5 µg/ml.  |
| IHC-Fr      | ★★★★☆     | Use at an assay dependent concentration.   |
| WB          |           | Use a concentration of 1 µg/ml. Predicted molecular weight: 70 kDa. Good results were obtained when blocked with 5% non-fat dry milk in 0.05% PBS-T. |

## Target

|   |   |
|---|---|
| <b>Function</b>                         | 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.  |
| <b>Tissue specificity</b>               | Expressed by the liver and secreted in plasma.  |
| <b>Involvement in disease</b>           | Factor II deficiency<br>Ischemic stroke<br>Thrombophilia due to thrombin defect<br>Pregnancy loss, recurrent, 2   |
| <b>Sequence similarities</b>            | Belongs to the peptidase S1 family.<br>Contains 1 Gla (gamma-carboxy-glutamate) domain.<br>Contains 2 kringle domains.<br>Contains 1 peptidase S1 domain.   |
| <b>Post-translational modifications</b> | 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.<br>N-glycosylated. N-glycan heterogeneity at Asn-121: Hex3HexNAc3 (minor), Hex4HexNAc3 (minor) and Hex5HexNAc4 (major). At Asn-143: Hex4HexNAc3 (minor) and Hex5HexNAc4 (major). |
| <b>Cellular localization</b>            | Secreted, extracellular space.  |

## Images



Western blot - Anti-Thrombin antibody (ab83981)

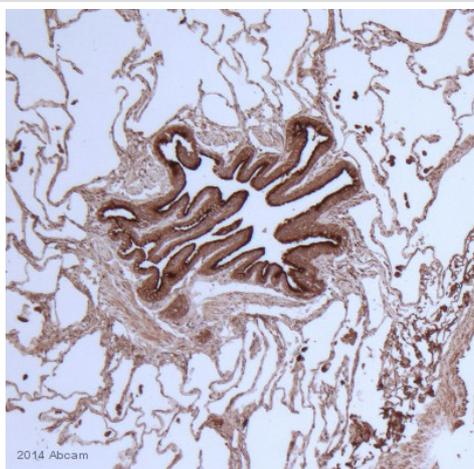
Anti-Thrombin antibody (ab83981) at 1 µg/ml (in 5% skim milk / PBS buffer) + 721\_B cell lysate at 10 µg

**Secondary**

HRP conjugated anti-Rabbit IgG at 1/50000 dilution

**Predicted band size:** 70 kDa

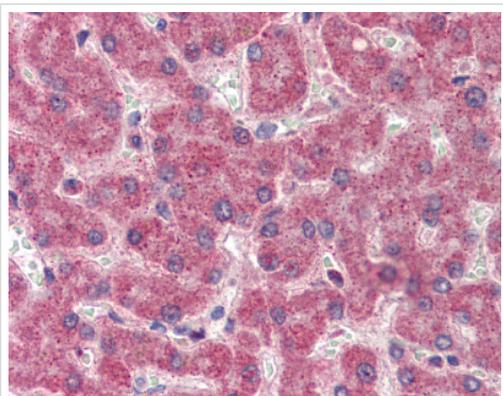
**Observed band size:** 70 kDa



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombin antibody (ab83981)

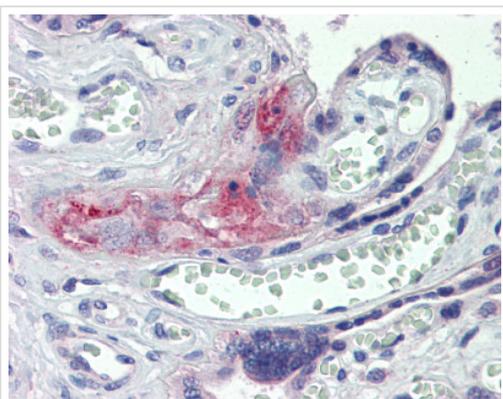
This image is courtesy of an anonymous Abreview

ab83981 staining Thrombin in human lung tissue sections by Immunohistochemistry (IHC-P - paraformaldehyde-fixed, paraffin-embedded sections). Tissue was fixed with formaldehyde, permeabilized with 0.2% Triton X-100 in PBS and blocked with 5% milk for 30 minutes at room temperature; antigen retrieval was by heat mediation in Tris pH 9.0. Samples were incubated with primary antibody (1/500 in PBS) for 16 hours at 4°C. An undiluted Biotin-conjugated goat anti-rabbit IgG polyclonal was used as the secondary antibody.



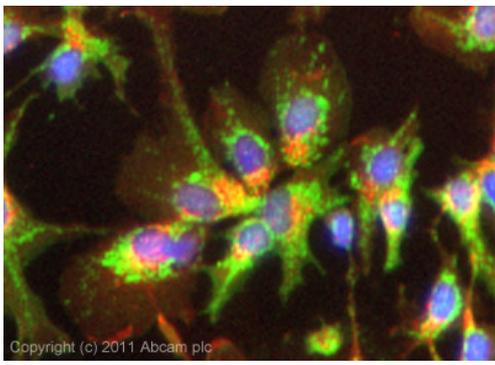
Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombin antibody (ab83981)

ab83981 at 5  $\mu$ g/ml staining Thrombin in Human liver tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections) - Anti-Thrombin antibody (ab83981)

ab83981 at 5  $\mu$ g/ml staining Thrombin in Human placenta tissue by Immunohistochemistry (Formalin/PFA-fixed paraffin-embedded sections).



Immunocytochemistry/ Immunofluorescence - Anti-Thrombin antibody (ab83981)

ICC/IF image of ab83981 stained HepG2 cells. The cells were 100% methanol fixed (5 min) and then incubated in 1%BSA / 10% normal goat serum / 0.3M glycine in 0.1% PBS-Tween for 1h to permeabilise the cells and block non-specific protein-protein interactions. The cells were then incubated with the antibody (ab83981, 5µg/ml) overnight at +4°C. The secondary antibody (green) was for 1h. Alexa Fluor® 594 WGA was used to label plasma membranes (red) at a 1/200 dilution for 1h. DAPI was used to stain the cell nuclei (blue) at a concentration of 1.43µM.

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