Sheep anti-rabbit Thrombin
Whole IgG from Antiserum
10 mg

Product #: SART-IG
Lot #: XXXX
Expiry date: XXXX

Store at –10 to -20°C

For Research Use Only. Not for use in diagnostic procedures.

Description of Thrombin
Thrombin (EC3.4.21.5, α-thrombin) is the product of proteolytic activation of the zymogen prothrombin. Human thrombin is a two-chain serine protease with a mass of 37 kDa. The active site is located within the heavy chain. Thrombin has a high specificity for certain arginine bonds in protein substrates. The primary substrate is fibrinogen which thrombin converts to fibrin through the cleavage of four arginyl-glycyl peptide bonds. Thrombin is also an important activator of platelets, factor XIII, Protein C and TAFI (Plasma procarboxypeptidase B). In a positive feedback mechanism, thrombin increases the rate of its own production by activation of factors VIII and V. The rate of thrombin production is subsequently limited indirectly through the activation of Protein C by thrombin, which then inactivates the activated cofactors VIII and V. The binding of thrombin to thrombomodulin on the cell surface dramatically alters thrombin’s specificity, increasing its activity toward Protein C and TAFI, and decreasing its activity toward fibrinogen and activating cofactors VIII and V. In plasma, thrombin activity is inhibited primarily by antithrombin and to a lesser extent heparin cofactor II. The rate of inhibition by both of these inhibitors is profoundly increased in the presence of optimal concentrations of heparin. Other physiological inhibitors of thrombin in the absence of heparin include α2-macroglobulin and α1-antitrypsin.

REFERENCES and REVIEWS
2. Stubbs MT, Bode W; A Player of Many Parts: The Spotlight Falls on Thrombin’s Structure; Thrombosis Research 69, pp 1-58, 1993.
3. Downing MW, Bloom JW, Mann KG; Comparison of the Inhibition of Thrombin by Three Plasma Protease Inhibitors; Biochemistry 17, pp 2649-2653, 1978.

Product Specifications

| Description: | Vial containing XXXX ml of whole IgG representing approximately 1 ml of antiserum. Total protein is 10 mg. |
| Format: | Whole IgG, clear liquid. |
| Host Animal: | Sheep |
| Immunogen: | Thrombin prepared from purified rabbit prothrombin, active site blocked with PPACK. |
| Concentration: | IgG concentration is XXXX mg/ml, determined by absorbance using an extinction coefficient (E1%280) of 13.4. |
| Buffer: | 10 mM HEPES, pH 7.4, 150 mM NaCl, 50% (v/v) glycerol. |
| Storage: | Store between –10 and –20°C. Product will become viscous but will not freeze. Avoid storage in frost-free freezers. Keep vial tightly capped. Allow product to warm to room temperature and gently mix before use. |
| Specificity: | This antibody is specific for rabbit thrombin (or prothrombin) as demonstrated by immunoelectrophoresis and ELISA. |
| Applications: | Suitable as a source of antibodies to rabbit thrombin (and prothrombin). |
| Neutralizing activity: | Not determined |
| Species Cross Reactivity: | (immunodiffusion vs. citrated plasma) |
| Human: XXXX | Mouse: XXXX | Rat: XXXX |
| Rabbit: XXXX | Pig: XXXX | Dog: XXXX |

Related Products:
Cat #: SAHT-IG Sheep anti-human Thrombin, whole IgG from antiserum
Cat #: SAHT-AP Sheep anti-human Thrombin, affinity-purified IgG
Cat #: SAHT-HRP Sheep anti-human Thrombin, peroxidase labelled IgG
Cat #: SABT-IG Sheep anti-bovine Thrombin, whole IgG from antiserum
Cat #: SABT-AP Sheep anti-bovine Thrombin, affinity-purified IgG
Cat #: SABT-HRP Sheep anti-bovine Thrombin, peroxidase labelled IgG
Cat #: SART-AP Sheep anti-rabbit Thrombin, affinity-purified IgG
Cat #: SART-HRP Sheep anti-rabbit Thrombin, peroxidase labelled IgG
Cat #: TAT-EIA Antibody set for ELISA of human thrombin-ATIII complex
Cat #: THCOI-EIA Antibody set for ELISA of human thrombin-HCII complex
Cat #: FI- DP Human plasma deficient in Prothrombin, immune depleted

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Limited Warranty: This product is warranted to perform in accordance with its labeling and literature. Affinity Biologicals Inc. disclaims any implied warranty of merchantability or fitness for any other purposes, and in no event will Affinity Biologicals Inc. be liable for any consequential damages arising out of aforesaid express warranty.

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