



Anti-Bovine Thrombin (Sheep) Peroxidase Conjugated IgG

Immunogen:	Bovine thrombin prepared from purified prothrombin, active site blocked with PPACK		
Format:	Peroxidase conjugated IgG in a buffered stabilizer solution containing 50% (v/v) glycerol		
Host:	Sheep		
Ref#:	SABT-HRP		
Lot#:	SAMPLE		
Exp Date:			
Storage:	Store between -10 and -20°C. Vial should be tightly capped. Do not store in frost-free freezers. Allow product to warm to room temperature and gently mix before use. Avoid exposure to Sodium azide as this is an inhibitor of peroxidase activity.		
Total Protein:	0.20 mg		
Applications:	Suitable as a source of peroxidase-labeled antibodies to bovine thrombin or prothrombin. For Research Use Only. Not for Use in Diagnostic Procedures. For <i>in vitro</i> use only.		
Volume:	1 vial containing 0.10 mL anti-bovine thrombin IgG conjugated to HRP through carbohydrate groups		
Concentration:	2 mg/mL IgG-HRP by Absorbance; Extinction Coefficient $E^{1\%}_{280} = 14$.		
Specificity:	Specificity demonstrated by immunoelectrophoresis and ELISA methods.		
Reinheitszahl Ratio (RZ):	0.49 (A_{403}/A_{280})		
Species Cross Reactivity:	Dog: ND	Human: ND	Mouse: ND
	Pig: ND	Rabbit: ND	Rat: ND

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. 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 α 2-macroglobulin and α 1-antitrypsin1.