

## Porcine Thrombin - Purified

**Catalog No.:** AR03016PU-N

**Quantity:** 500

**Background:** Thrombin enzyme (Activated Factor IIa) is an important clotting promoter that controls the transformation of soluble fibrinogen to insoluble active fibrin strands. Thrombin is a coagulation protein and a serine protease (EC 3.4.21.5) that catalyzes many coagulation-related reactions. Thrombin triggers factor-XI, factor-V, Factor-XIII and factor-VIII. Thrombin endorses platelet activation, using activation of protease-activated receptors on the platelet. As a result of its high proteolytic specificity, thrombin has become an important biochemical protein. The thrombin cleavage site (Leu-Val-Pro-Arg-Gly-Ser) is widely used in linker regions of recombinant fusion protein constructs. After the purification of the fusion protein, thrombin is used to cleave between the Arginine and Glycine residues of the cleavage site, efficiently removing the purification tag from the protein of interest with a high degree of specificity.

**Species:** Porcine

**Source:** Plasma, Porcine Blood

**Format:** **State:** Sterile Filtered White lyophilized (freeze-dried) powder  
**Buffer System:** 20mM PBS, pH 7.4 containing 0.9% NaCl  
**Reconstitution:** Reconstitute in 18MΩ-cm H<sub>2</sub>O.

**Description:** Lyophilized Thrombin  
**Biological Activity:** One unit is defined as the amount of enzyme needed to cleave 1 mg of fusion protein in 16 hours to 95% completion at 20°C in a buffer containing 25 mM Tris-HCl, pH 8.4, 150 mM NaCl, and 2.5 mM CaCl<sub>2</sub>.

**Storage:** The lyophilized protein can be stored at room temperature up to two weeks, and desiccated at -20 °C for longer. Following reconstitution it can be stored at 2- 8 °C for up to one week, and at -20 °C for longer. For long term storage it is recommended to add a carrier protein (0.1 % HSA or BSA). Avoid repeated freezing and thawing.  
Shelf life: one year from desatch.