

## Active Native Bovine alpha-Thrombin-DFP

**Cat. No.** Thrombin-28B    **Lot. No.** (See product label)

### SPECIFICATION

|                         |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
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| <b>Product Overview</b> | Native Bovine alpha-Thrombin was purified from Plasma. DFP is thrombin blocked with DFP (Diisopropylfluorophosphate).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| <b>Species</b>          | Bovine                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Source</b>           | Plasma                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <b>Description</b>      | <p>Alpha-thrombin is a highly specific serine protease generated by proteolytic activation of the zymogen prothrombin. During coagulation, thrombin cleaves fibrinogen to form fibrin, leading to the ultimate step in coagulation, the formation of a fibrin clot.</p> <p>Thrombin is also responsible for feedback activation of the procofactors factor V and factor VIII. Thrombin has also been reported to activate factor XIII and platelets, and also functions as a vasoconstrictor protein. The procoagulant activity of thrombin is arrested in two ways: 1) inhibition by either heparin cofactor II or the antithrombin III/heparin complex; or 2) complex formation with thrombomodulin. Formation of the thrombin/thrombomodulin complex results in the inability of thrombin to cleave fibrinogen and activate factors V and VIII, but increases the efficiency of thrombin for activation of the anticoagulant, protein C.</p> |
| <b>Form</b>             | 20 mM Hepes, 150 mM NaCl, pH 7.4                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| <b>Bio-activity</b>     | approximately 3800 NIH units/mg                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>Molecular Mass</b>   | 36700 Da                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |

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|----------------|---------------------------------------------------------|
| <b>Purity</b>  | >95% by SDS-PAGE                                        |
| <b>Storage</b> | Glycerol formulation: -20°C<br>Hepes formulation: -80°C |