

## Native Bovine Thrombin

Cat. No. NATE-0698

Lot. No. (See product label)

### Introduction

#### Description

Thrombin is a serine protease that in humans is encoded by the F2 gene. Prothrombin (coagulation factor II) is proteolytically cleaved to form thrombin in the coagulation cascade, which ultimately results in the reduction of blood loss. Thrombin in turn acts as a serine protease that converts soluble fibrinogen into insoluble strands of fibrin, as well as catalyzing many other coagulation-related reactions.

#### Applications

Thrombin is used for site specific cleavage of recombinant fusion proteins containing an accessible thrombin recognition site for removal of affinity tags. Thrombin has been used in a study to assess an expression and purification system for the biosynthesis of adenosine receptor peptides for biophysical and structural characterization.

#### Synonyms

thrombin; 9002-04-4; EC 3.4.21.5; fibrinogenase; thrombase; thrombofort; topical; thrombin-C; tropostasin; activated blood-coagulation factor II; blood-coagulation factor IIa; factor IIa; E thrombin;  $\beta$ -thrombin;  $\gamma$ -thrombin

### Product Information

#### Species

Bovine

#### Source

Bovine plasma

#### Form

Type I, Lyophilized from saline sodium Citrate buffer, pH 6.5; Type II, buffered aqueous solution, In 0.05 M phosphate buffer, pH 7.0

#### EC Number

EC 3.4.21.5

#### CAS No.

9002-04-4

#### Activity

600-2,000 NIH units/mg protein (biuret) or > 2,000 NIH units/mg protein (E1%/280 = 19.5); > 125 NIH units/mg protein (biuret)

#### Pathway

Cell surface interactions at the vascular wall, organism-specific biosystem; Class A/1 (Rhodopsin-like receptors), organism-specific biosystem; Common Pathway, organism-specific biosystem

#### Function

calcium ion binding; fibrinogen binding; protein binding