9051 Mira Mesa Blvd, #910094
San Diego, CA 92191
Tel: 760-390-3989

Thrombin

Human Thrombin
NTP0052

Product Overview

Name	Thrombin

Description

Human Thrombin

Introduction

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.

Source

Human Plasma.

Physical Appearance

lyophilized powder.

Formulation

Lyophilized protein containing mannitol, sodium chloride, calcium chloride.

Stability

Lyophilized Human Thrombin although stable at room temperature for 3 weeks, should be stored desiccated below -18°C. Upon reconstitution human thrombin should be stored at 4°C between 2-7 days and for future use below -18°C. For long term storage it is recommended to add a carrier protein (0.1% HSA or BSA). Please prevent freeze-thaw cycles.

Biological Activity

The specific activity was found to be 116 US Units/mg protein.

Solubility

It is recommended to reconstitute the lyophilized human thrombin in sterile a 0.9% NaCl solution at 500U/ml.

Precautions

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Thrombin is for research use only and not for use in diagnostic or therapeutic procedures.