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# Thrombin Human, HEK

*Thrombin Human Recombinant, HEK*
*NTP0055*

## Product Overview

| | |
|---|---|
| Name | Thrombin Human, HEK |
| **Description** | |
| Thrombin Human Recombinant, HEK | |
| Accession (Primary) | P00734 |
| **Synonyms** | |
| Prothrombin, EC 3.4.21.5, Coagulation factor II, F2, PT, THPH1, RPRGL2. | |
| **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** | |
| HEK | |
| **Physical Appearance** | |
| Sterile Filtered colorless solution. | |
| **Formulation** | |
| The Thrombin solution contains 20mM MES, pH6.0 and 500mM Choline Chloride. | |
| **Stability** | |
| Store frozen at -20°C to -80°C for long periods of time. Avoid multiple freeze-thaw cycles. | |
| **Biological Activity** | |
| 5396 NIH Units/mg. The activity was determined in NIH units by comparing to Sigma's human plasma thrombin. Protein concentration was measured using E(0.1%)@280nm = 1.83. | |
| **Assay Conditions** | |
| Thrombin (1nM) was assayed using SPECTROZYME TH as a substrate (20 µM) in 5mM Tris-HCl (pH8.0), 0.1% PEG, | |

200mM NaCl at 25°C.

**Precautions**

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

## Target Information: ( P00734 )