

## HumanKine® Thrombin (Coagulation Factor II) (Recombinant Human)



Animal Component-Free

Human cell expressed

Tag-Free

Endotoxin Free

### Product Description

Animal-free Recombinant Human Thrombin is expressed in human 293 cells as a monomeric glycoprotein with an apparent molecular mass of 36 kDa. Production in human 293 cells ensures authentic glycosylation. Thrombin is a coagulation protein and a serine protease that catalyzes numerous coagulation correlated reactions. Thrombin also regulates the behavior of additional cells through protease activated receptors and endorses platelet activation. This recombinant protein is produced in a human cell expression system with serum-free, chemically defined media.<sup>1</sup>

#### Alternative Names

Coagulation factor II, F2, Prothrombin, PT, Thrombin

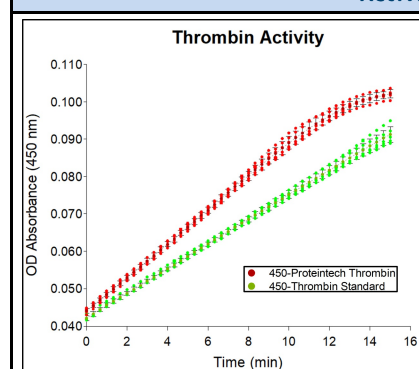
#### Source

Human Embryonic Kidney cells (HEK293), HEK293-derived Thrombin (Coagulation Factor II) protein

### Specifications

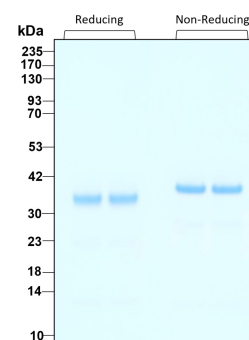
Test	Method	Specification
Activity	Rate of free chromophore formation from Chromozym TH thrombin substrate monitored by absorbance at 405 nm	1000-5000 units/mg
Molecular Mass	SDS-PAGE	34 kDa reduced, 36 kDa non-reduced, monomer, glycosylated
Purity	SDS-PAGE	> 95%
Endotoxin	LAL	<1 EU/μg

### Activity Data



The activity of GMP thrombin (HZ-3010-GMP) was measured by the rate of free chromophore formation from Chromozym TH thrombin substrate monitored by absorbance at 405 nm. The enzymatic reaction was carried out in 50mM Tris-HCl pH 8.3 buffer containing 0.1% BSA and 227 mM NaCl at 25°C. Activity ranges from 1000-5000 units/mg.

### SDS-PAGE



Preparation	
Shipping Temperature	Dry Ice
Formulation	20 mM MES pH 6.0 + 500 mM Choline Chloride, See Certificate of Analysis for details
Reconstitution	Not Applicable. Product provided in liquid format.

Stability and Storage	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
	Lyophilized	Room Temperature	2 weeks
	Reconstituted as per CofA	-20°C to -80°C	6 months
	Reconstituted as per CofA	4°C	1 week
	Avoid repeated freeze-thaw cycles.		

[www.ptglab.com](http://www.ptglab.com)

Document #: FR-QA118-101 Rev 0  
Data Sheet Version #: 1

**Proteintech Group, Inc.**  
5500 Pearl Street, Suite 400 Rosemont, IL 60612  
t: 1-888-478-4522; f: 1-312-455-8408  
Email: [proteintech@ptglab.com](mailto:proteintech@ptglab.com)