

Catalog Number: HZ-3010

Data Sheet



HumanKine® Thrombin (Coagulation Factor IIa) (Recombinant Human)

Animal Component-Free

Human cell expressed

Tag-Free

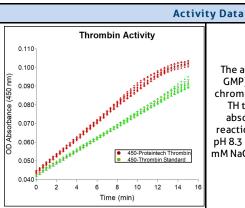
Endotoxin Free

Product Description

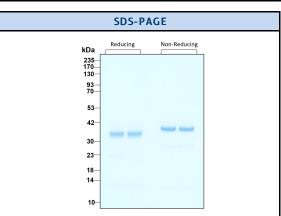
Animal-free Recombinant Human Thrombin is expressed in human 293 cells as a monomeric glycoprotein with an apparent molecular mass of 36 kDa. Production in human 293 cells ensures authentic glycosylation. Thrombin is a coagulation protein and a serine protease that catalyzes numerous coagulation correlated 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.1

Alternative Names	Coagulation factor II, F2, Prothrombin, PT, Thrombin	
Source	Human Embryonic Kidney cells (HEK293). HEK293-derived Thrombin (Coagulation Factor IIa) 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			



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.



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Data Sheet Version #: 1

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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.				

	Product Form	Temperature Conditions	Storage Time (From Date of Receipt)
	Lyophilized	-20°C to -80°C	Until Expiry Date
Stability and Storage	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.	

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