

Prothrombin Protein, Human (HEK293, His)

Cat. No.:	HY-P701216
Synonyms:	PT; RPRGL2; THPH1
Species:	Human
Source:	HEK293
Accession:	P00734 (M1-E622)
Gene ID:	2147
Molecular Weight:	Approximately 75-100 kDa

PROPERTIES

AA Sequence

MAHVRGLQLP	GCLALAAALCS	LVHSQHVFLA	PQQARSL LQR
VRRANTFLEE	VRKGNLEREC	VEETCSYEEA	FEALESSTAT
DVFWAKYTAC	ETARTPRDKL	AACLEGNCAE	GLGTNYRGHV
NITRSGIECQ	LWRSRYPHKP	EINSTTHPGA	DLQENFCRNP
DSSTTGWCY	TTDPTVRRQE	CSIPVCGQDQ	VTVAMTPRSE
GSSVNLSPPL	EQCVPDRGQQ	YQGR LAVTTH	GLPCLAWASA
QAKALSKHQD	FNSAVQLVEN	FCRNPDGDEE	GAWCYVAGKP
GDFGYCDLNY	CEEAVEEETG	DGLDEDS DRA	IEGRTATSEY
QTF FNPRTFG	SGEADCGLRP	LF EKKSLEDK	TERELLESYI
DGRIVEGSDA	EIGMSPWQVM	LFRKSPQELL	CGASLISDRW
VLTAAHCLLY	PPWDKNFTEN	DLLVRIGKHS	RTRYERNIEK
ISMLEKIYIH	PRYNWRENLD	RDIALMKLKK	PVAFSDYIHP
VCLPDRETA A	SLLQAGYKGR	VTGWGNLKET	WTANVGKQGP
SVLQVVNLP I	VERPVCKDST	RIRITDNMFC	AGYKPDEGKR
GDACEGDSGG	PFVMKSPFNN	RWYQMGIVSW	GEGCDRDGKY
GFYTHVFR LK	KWIQKVIDQF	GE	

Appearance

Lyophilized powder

Formulation

Lyophilized from sterile 25 mM Tris-HCl, 100 mM glycine, pH 7.3, 10% glycerol.

Endotoxin Level

<1 EU/μg, determined by LAL method.

Reconstitution

It is not recommended to reconstitute to a concentration less than 100 μg/mL in ddH₂O. For long term storage it is recommended to add a carrier protein (0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose).

Storage & Stability

Stored at -20°C for 2 years. After reconstitution, it is stable at 4°C for 1 week or -20°C for longer (with carrier protein). It is recommended to freeze aliquots at -20°C or -80°C for extended storage.

Shipping

Room temperature in continental US; may vary elsewhere.

DESCRIPTION

Background

The Prothrombin protein, also known as Factor II, serves as a critical player in various physiological processes. Thrombin, a serine protease derived from prothrombin, cleaves bonds following Arg and Lys residues, facilitating the conversion of fibrinogen into fibrin. Additionally, prothrombin actively participates in the activation of key factors such as V, VII, VIII, XIII, and, when in conjunction with thrombomodulin, protein C. Beyond its central role in blood homeostasis, prothrombin contributes significantly to inflammation and the intricate process of wound healing.

Caution: Product has not been fully validated for medical applications. For research use only.

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