

Coagulation Factor II/F2 Protein, Mouse (HEK293, His)

Cat. No.:	HY-P72944
Synonyms:	Prothrombin; Coagulation factor II
Species:	Mouse
Source:	HEK293
Accession:	Q3TJ94 (Q25-G618)
Gene ID:	14061
Molecular Weight:	Approximately 85 kDa

PROPERTIES

AA Sequence

Q H V F L A P Q Q A	L S L L Q R V R R A	N S G F L E E L R K	G N L E R E C V E E
Q C S Y E E A F E A	L E S P Q D T D V F	W A K Y T V C D S V	R K P R E T F M D C
L E G R C A M D L G	V N Y L G T V N V T	H T G I Q C Q L W R	S R Y P H K P E I N
S T T H P G A D L K	E N F C R N P D S S	T T G P W C Y T T D	P T V R R E E C S V
P V C G Q E G R T T	V V M T P R S G G S	K D N L S P P L G Q	C L T E R G R L Y Q
G N L A V T T L G S	P C L P W N S L P A	K T L S K Y Q D F D	P E V K L V E N F C
R N P D W D E E G A	W C Y V A G Q P G D	F E Y C N L N Y C E	E A V G E E N Y D V
D E S I A G R T T D	A E F H T F F N E K	T F G L G E A D C G	L R P L F E K K S L
K D T T E K E L L D	S Y I D G R I V E G	W D A E K G I A P W	Q V M L F R K S P Q
E L L C G A S L I S	D R W V L T A A H C	I L Y P P W D K N F	T E N D L L V R I G
K H S R T R Y E R N	V E K I S M L E K I	Y V H P R Y N W R E	N L D R D I A L L K
L K K P V P F S D Y	I H P V C L P D K Q	T V T S L L R A G Y	K G R V T G W G N L
R E T W T T N I N E	I Q P S V L Q V V N	L P I V E R P V C K	A S T R I R I T D N
M F C A G F K V N D	T K R G D A C E G D	S G G P F V M K S P	F N N R W Y Q M G I
V S W G E G C D R K	G K Y G F Y T H V F	R L K R W I Q K V I	D Q F G

Biological Activity Measured by its ability to cleave a peptide substrate, BOC-Val-Pro-Arg-AMC. Read at excitation and emission wavelengths of 380 nm and 460 nm (top read). The specific activity is 25888.119 pmol/min/μg, as measured under the described conditions.

Appearance Lyophilized powder

Formulation Lyophilized from a 0.2 μm filtered solution of PBS, pH 7.4.

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 Coagulation Factor II/F2 protein, commonly known as thrombin, plays a pivotal role in various physiological processes. Operating as a serine protease, thrombin cleaves bonds following Arg and Lys residues, leading to the conversion of fibrinogen into fibrin. Moreover, thrombin activates several crucial factors, including V, VII, VIII, XIII, and, when in conjunction with thrombomodulin, protein C. Beyond its fundamental role in blood homeostasis, thrombin also contributes 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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