

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

Cat. No.:	HY-P74241
Synonyms:	Prothrombin; Coagulation factor II
Species:	Rat
Source:	HEK293
Accession:	P18292/NP_075213.2 (Q25-R617)
Gene ID:	29251
Molecular Weight:	Approximately 69.5 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	L N Y H G N V S V T	H T G I E C Q L W R	S R Y P H R P D I N
S T T H P G A D L K	E N F C R N P D S S	T S G P W C Y T T D	P T V R R E E C S I
P V C G Q E G R T T	V K M T P R S R G S	K E N L S P P L G E	C L L E R G R L Y Q
G N L A V T T L G S	P C L A W D S L P T	K T L S K Y Q N F D	P E V K L V Q N F C
R N P D R D E E G A	W C F V A Q Q P G F	E Y C S L N Y C D E	A V G E E N H D G D
E S I A G R T T D A	E F H T F F D E R T	F G L G E A D C G L	R P L F E K K S L T
D K 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	I 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 Q 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 Y	N H R W Y Q M G I V
S W G E G C D R N G	K Y G F Y T H V F R	L K R W M Q K V I D	Q H R

Biological Activity The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.

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

Coagulation Factor II/F2 Protein, commonly known as thrombin, plays a pivotal role in blood homeostasis, inflammation, and wound healing. This multifunctional enzyme, with its ability to cleave bonds after Arg and Lys, serves as a key player in the coagulation cascade. Thrombin catalyzes the conversion of fibrinogen to fibrin, forming the essential meshwork for blood clotting. Additionally, it activates several factors including V, VII, VIII, XIII, and, when in complex with thrombomodulin, protein C, contributing to the intricate regulation of coagulation and anticoagulation pathways. The diverse functions of Coagulation Factor II/F2 underscore its indispensable role in maintaining the delicate balance of blood clotting, immune responses, and the intricate processes involved in tissue repair and healing.

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

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