

Cathepsin E Protein, Human (HEK293, His)

Cat. No.:	HY-P7750
Synonyms:	rHuCathepsin E, His; Cathepsin E; CTSE
Species:	Human
Source:	HEK293
Accession:	P14091 (S20-P396)
Gene ID:	1510
Molecular Weight:	Approximately 42-48 kDa

PROPERTIES

AA Sequence	<pre> S L H R V P L R R H P S L K K K L R A R S Q L S E F W K S H N L D M I Q F T E S C S M D Q S A K E P L I N Y L D M E Y F G T I S I G S P P Q N F T V I F D T G S S N L W V P S V Y C T S P A C K T H S R F Q P S Q S S T Y S Q P G Q S F S I Q Y G T G S L S G I I G A D Q V S V E G L T V V G Q Q F G E S V T E P G Q T F V D A E F D G I L G L G Y P S L A V G G V T P V F D N M M A Q N L V D L P M F S V Y M S S N P E G G A G S E L I F G G Y D H S H F S G S L N W V P V T K Q A Y W Q I A L D N I Q V G G T V M F C S E G C Q A I V D T G T S L I T G P S D K I K Q L Q N A I G A A P V D G E Y A V E C A N L N V M P D V T F T I N G V P Y T L S P T A Y T L L D F V D G M Q F C S S G F Q G L D I H P P A G P L W I L G D V F I R Q F Y S V F D R G N N R V G L A P A V P H H H H H H </pre>
Biological Activity	The enzyme activity of this recombinant protein is testing in progress, we cannot offer a guarantee yet.
Appearance	Lyophilized powder.
Formulation	Lyophilized after extensive dialysis against 20 mM MES, 150 mM NaCl, pH 5.5.
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 ddH ₂ O. 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

Cathepsin E is an aspartic protease and a member of the peptidase A1 family of proteases. As an intracellular, hydrolytic aspartic protease, Cathepsin E is mainly expressed in cells of the immune and gastrointestinal systems, lymphoid tissues, erythrocytes, and cancer cells^[1].

Cathepsin E functions by breaking down proteins through the hydrolysis of peptide bonds at a specific peptide sequence site. And Cathepsin E plays an important role in the degradation of proteins, the generation of bioactive proteins, and antigen processing^[2].

Human Cathepsin E is synthesized as a precursor protein, consisting of a signal peptide (residues 1-17), a propeptide (residues 18-53), and a mature chain (residues 54-396)^[3].

REFERENCES

- [1]. T Tsukuba, et al. New functional aspects of cathepsin D and cathepsin E. *Mol Cells*
- [2]. F Grüniger-Leitch, et al. Identification of beta-secretase-like activity using a mass spectrometry-based assay system. *Nat Biotechnol.* 2000 Jan;18(1):66-70.
- [3]. T Azuma, et al. Human gastric cathepsin E. Predicted sequence, localization to chromosome 1, and sequence homology with other aspartic proteinases. *J Biol Chem*

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

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