

Cathepsin B Protein, Human (L26V, HEK293, His)

Cat. No.:	HY-P78682
Synonyms:	CTSB; CPSB; APPS
Species:	Human
Source:	HEK293
Accession:	P07858-1 (R18-I339, L26V)
Gene ID:	1508
Molecular Weight:	10-45 kDa

PROPERTIES

AA Sequence	<pre> R S R P S F H P V S D E L V N Y V N K R N T T W Q A G H N F Y N V D M S Y L K R L C G T F L G G P K P P Q R V M F T E D L K L P A S F D A R E Q W P Q C P T I K E I R D Q G S C G S C W A F G A V E A I S D R I C I H T N A H V S V E V S A E D L L T C C G S M C G D G C N G G Y P A E A W N F W T R K G L V S G G L Y E S H V G C R P Y S I P P C E H H V N G S R P P C T G E G D T P K C S K I C E P G Y S P T Y K Q D K H Y G Y N S Y S V S N S E K D I M A E I Y K N G P V E G A F S V Y S D F L L Y K S G V Y Q H V T G E M M G G H A I R I L G W G V E N G T P Y W L V A N S W N T D W G D N G F F K I L R G Q D H C G I E S E V V A G I P R T D Q Y W E K I </pre>
Biological Activity	Measured by its ability to cleave the fluorogenic peptide substrate Z-LR-AMC. Read at excitation and emission wavelengths of 380 nm and 460 nm. The specific activity is ≥ 2500 pmol/min/ μ g, as measured under the described conditions.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.2 μ m filtered solution of 50 mM Tris, 150 mM NaCl, pH 8.0 or PBS, 6% Trehalose, pH 7.4.
Endotoxin Level	<1 EU/ μ g, determined by LAL method.
Reconstitution	It is not recommended to reconstitute to a concentration less than 100 μ g/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 B Protein, a thiol protease, is thought to play a crucial role in intracellular protein degradation and turnover. This enzyme cleaves matrix extracellular phosphoglycoprotein MEPE and is implicated in the solubilization of cross-linked TG/thyroglobulin within the thyroid follicle lumen. Beyond its role in cellular processes, Cathepsin B has been associated with tumor invasion and metastasis, highlighting its potential significance in cancer-related pathways.

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

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