

# Product Data Sheet

## Cathepsin B Protein, Human (HEK293, C-His)

Cat. No.:	HY-P7993A
Synonyms:	APPS, Cathepsin B1
Species:	Human
Source:	HEK293
Accession:	P07858 (R18-I339)
Gene ID:	1508
Molecular Weight:	Approximately 35-40 kDa due to the glycosylation.

### PROPERTIES

AA Sequence	R S R P S F H P L SD E L V N Y V N K RN T T WQ A G H N FY N V D M S Y L K RL C G T F L G G P KP P Q R V M F T E DL K L P A S F D A RE Q W P Q C P T I KE I R D Q G S C G SC W A F G A V E A IS D R I C I H T N AH V S V E V S A E DL L T C C G S M C GD G C N G G Y P A EA W N F W T R K G LV S G G L Y E S H VG C R P Y S I P P CE H H V N G S R P PC T G E G D T P K CS K I C E P G Y S PT Y K Q D K H Y G YN S Y S V S N S E KD I M A E I Y K N GP V E G A F S V Y SD F L L Y K S G V YQ H V T G E M M G GH A I R I L G W G VE N G T P Y W L V AN S W N T D W G D NG F F K I L R G Q DH C G I E S E V V AG I P R T D Q Y W EK I
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 ≥6647.5414 pmol/min/µg, as measured under the described conditions.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 $\mu m$ filtered solution of PBS, pH 7.4.
Endotoxin Level	<1 EU/µg, determined by LAL method.
Reconsititution	It is not recommended to reconstitute to a concentration less than 100 μg/mL in PBS, pH 7.4. 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 is a lysosomal cysteine protease of the papain family. It functions in intracellular protein catabolism and in certain situations may also be involved in other physiological processes, such as processing of antigens in the immune response, hormone activation and bone turnover. There is also evidence that cathepsin B is implicated in the pathology of chronic inflammatory diseases of airways and joints, and in cancer and pancreatitis<sup>[1]</sup>.

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

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