

Cathepsin K Protein, Rat (His)

Cat. No.:	HY-P72158
Synonyms:	Ctsk; Cathepsin K; EC 3.4.22.38
Species:	Rat
Source:	E. coli
Accession:	O35186 (V115-M329)
Gene ID:	29175
Molecular Weight:	Approximately 27.5 kDa

PROPERTIES

AA Sequence	<p>V P D S I D Y R K K G Y V T P V K N Q G Q C G S C W A F S S A G A L E G Q L K K</p> <p>K T G K L L A L S P Q N L V D C V S E N Y G C G G G Y M T T A F Q Y V Q Q N G G</p> <p>I D S E D A Y P Y V G Q D E S C M Y N A T A K A A K C R G Y R E I P V G N E K A</p> <p>L K R A V A R V G P V S V S I D A S L T S F Q F Y S R G V Y Y D E N C D R D N V</p> <p>N H A V L V V G Y G T Q K G N K Y W I I K N S W G E S W G N K G Y V L L A R N K</p> <p>N N A C G I T N L A S F P K M</p>
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 solution of Tris-based buffer, 50% Glycerol.
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.
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	<p>Cathepsin K Protein, a thiol protease, plays a crucial role in osteoclastic bone resorption and is implicated in the regulation of bone remodeling. It exhibits potent endoprotease activity against fibrinogen under acidic conditions, suggesting its involvement in extracellular matrix degradation. Additionally, Cathepsin K is involved in the release of thyroid hormone thyroxine (T4) through limited proteolysis of TG/thyroglobulin in the thyroid follicle lumen. This multifaceted functionality underscores its significance in both bone metabolism and thyroid hormone regulation, emphasizing its role in maintaining</p>
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the delicate balance of these physiological processes.

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

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