

Cathepsin A Protein, Human (HEK293, His)

Cat. No.:	HY-P7745A
Synonyms:	Lysosomal protective protein; CTSA; Carboxypeptidase C; Carboxypeptidase L; Cathepsin A
Species:	Human
Source:	HEK293
Accession:	P10619-1 (A29-Y480)
Gene ID:	5476
Molecular Weight:	51-60 kDa

PROPERTIES

AA Sequence	<pre> A P D Q D E I Q R L P G L A K Q P S F R Q Y S G Y L K G S G S K H L H Y W F V E S Q K D P E N S P V V L W L N G G P G C S S L D G L L T E H G P F L V Q P D G V T L E Y N P Y S W N L I A N V L Y L E S P A G V G F S Y S D D K F Y A T N D T E V A Q S N F E A L Q D F F R L F P E Y K N N K L F L T G E S Y A G I Y I P T L A V L V M Q D P S M N L Q G L A V G N G L S S Y E Q N D N S L V Y F A Y Y H G L L G N R L W S S L Q T H C C S Q N K C N F Y D N K D L E C V T N L Q E V A R I V G N S G L N I Y N L Y A P C A G G V P S H F R Y E K D T V V V Q D L G N I F T R L P L K R M W H Q A L L R S G D K V R M D P P C T N T T A A S T Y L N N P Y V R K A L N I P E Q L P Q W D M C N F L V N L Q Y R R L Y R S M N S Q Y L K L L S S Q K Y Q I L L Y N G D V D M A C N F M G D E W F V D S L N Q K M E V Q R R P W L V K Y G D S G E Q I A G F V K E F S H I A F L T I K G A G H M V P T D K P L A A F T M F S R F L N K Q P Y </pre>
Biological Activity	Measured by its ability to cleave a colorimetric peptide substrate of 20 μ M Mca-RPPGFSAFK(Dnp)-OH (HY-P3749) that incubate at room temperature for 5 minutes. The specific activity is 3621.65 pmol/min/ μ g.
Appearance	Lyophilized powder
Formulation	Lyophilized from a 0.22 μ m filtered solution of PBS, pH 7.4, 8% trehalose.
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 A Protein emerges as a crucial protective factor essential for the activity of both beta-galactosidase and neuraminidase. Operating in association with these enzymes, Cathepsin A plays a pivotal role in preserving their stability and ensuring optimal enzymatic activity. Beyond its protective function, this protein exhibits carboxypeptidase activity, broadening its functional repertoire. Notably, Cathepsin A demonstrates the ability to deamidate tachykinins, showcasing its involvement in diverse biochemical processes. The multifaceted roles of Cathepsin A underscore its significance in maintaining the integrity and functionality of key enzymatic processes, thereby contributing to cellular homeostasis.

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

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