

Cathepsin D Protein, Mouse (HEK293, His)

Cat. No.:	HY-P7749
Synonyms:	rMuCathepsin D, His; Cathepsin D; CTSD; CPSD
Species:	Mouse
Source:	HEK293
Accession:	P18242 (I21-L410)
Gene ID:	13033
Molecular Weight:	Approximately 46 kDa

PROPERTIES

AA Sequence	<pre> I I R I P L R K F T S I R R T M T E V G G S V E D L I L K G P I T K Y S M Q S S P K T T E P V S E L L K N Y L D A Q Y Y G D I G I G T P P Q C F T V V F D T G S S N L W V P S I H C K I L D I A C W V H H K Y N S D K S S T Y V K N G T S F D I H Y G S G S L S G Y L S Q D T V S V P C K S D Q S K A R G I K V E K Q I F G E A T K Q P G I V F V A A K F D G I L G M G Y P H I S V N N V L P V F D N L M Q Q K L V D K N I F S F Y L N R D P E G Q P G G E L M L G G T D S K Y Y H G E L S Y L N V T R K A Y W Q V H M D Q L E V G N E L T L C K G G C E A I V D T G T S L L V G P V E E V K E L Q K A I G A V P L I Q G E Y M I P C E K V S S L P T V Y L K L G G K N Y E L H P D K Y I L K V S Q G G K T I C L S G F M G M D I P P P S G P L W I L G D V F I G S Y Y T V F D R D N N R V G F A N A V V L H H H H H H </pre>
Biological Activity	Measured by its ability to cleave a peptide substrate, Mca-PLGL-Dpa-AR-NH ₂ . Read at excitation and emission wavelengths of 320 nm and 405 nm (top read). The specific activity is 5026.88 pmol/min/μg, as measured under the described conditions.
Appearance	Lyophilized powder.
Formulation	Lyophilized from a 0.2 μm filtered solution of 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 from date of receipt. 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 D, a lysosomal aspartic protease, belongs to the pepsin family. Mouse Cathepsin D consists of a signal peptide (residues 1-20), a propeptide (residues 21-64), and a mature chain (residues 65-410) (1,3). Cathepsin D is expressed in most cells and overexpressed in some cancer (breast, melanoma, ovary, etc.). Cathepsin D increases the incidence of clinical metastasis involves increased cell growth and decreased contact inhibition rather than escape of cancer cells through the basement membrane^{[1][2]}.

Cathepsin D acts as a protease following its activation at an acidic pH, or as a ligand of different membrane receptors at a more neutral pH^[1].

REFERENCES

[1]. H Rochefort, et al. Cathepsin D in breast cancer: mechanisms and clinical applications, a 1999 overview. Clin Chim Acta. 2000 Feb 15;291(2):157-70.

[2]. T Tsukuba, et al. New functional aspects of cathepsin D and cathepsin E. Mol Cells

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

Tel: 609-228-6898

Fax: 609-228-5909

E-mail: tech@MedChemExpress.com

Address: 1 Deer Park Dr, Suite Q, Monmouth Junction, NJ 08852, USA