

DATASHEET
Version 20181206

Cathepsin L, Human

Cat. No.: Z03323-10**Size:** 10.0 ug**Synonyms:** Cathepsin L; CTSL; CTSL1**Description:**

Cathepsin L, also known as Aldrichina grahami cysteine proteinase, is an important lysosomal endopeptidase enzyme which is involved in the initiation of protein degradation. It is a member of the Peptidase C1 family, which play an important role in diverse processes including normal lysosome mediated protein turnover, antigen and proprotein processing, and apoptosis. Cathepsin L has also been shown to proteolytically inactivate α -1-antitrypsin and secretory leucoprotease inhibitor, two major protease inhibitors of the respiratory tract. Cathepsin L expression has been reported in many organisms including fish, birds and mammals.

Recombinant Human Cathepsin L produced in CHO cells is a polypeptide chain containing 227 amino acids. A fully biologically active molecule, rhCathepsin L has a molecular mass of 40 kDa analyzed by reducing SDS-PAGE and is obtained by chromatographic techniques at GenScript.

Amino Acid Sequence:

```
00001 EAPRSVDWRE KGYVTPVKNQ GQCGSCWAFS ATGALEGQMF
00041 RKTGRLISLS EQNLVDCSGP QGNEGCNGGL MDYAFQYVQD
00081 NGGLDSEESY PYEATEESCK YNPKYSVAND TGFVDIPKQE
00121 KALMKAVATV GPISVAIDAG HESFLFYKEG IYFEPDCSSE
00161 DMDHGVLVVG YGFESTESDN NKYWLKNSW GEEWGMGGYV
00201 KMAKDRRNHC GIASAASYPT VHHHHHH
```

Source: CHO

Biological Activity: The Specific Activity is > 2000 pmol/min/ μ g, measured by Cathepsin L's ability to cleave the fluorogenic peptide substrate Z-FR-AMC (Enzo, Catalog: P139).

Assay buffer: 400 mM sodium acetate, pH5.5, 4 mM EDTA, 8 mM DTT

Molecular Weight: 40 kDa, observed by reducing SDS-PAGE.

Formulation: Liquid after a 0.2 μ m filtered solution in 50 mM NaOAc, 50 mM NaCl, 20% Glycerol, pH 6.0.

Purity: > 95% as analyzed by SDS-PAGE & HPLC.

Endotoxin Level: < 0.2 EU/ μ g, determined by LAL method.

Storage: Recombinant Human Cathepsin L remains stable up to 6 months at lower than -70°C from date of receipt under sterile conditions. Up to 3 months at lower than -70°C under sterile conditions after opening. Avoid repeated freeze-thaw cycles.