

Product Specification Sheet
Human Liver Cathepsin L

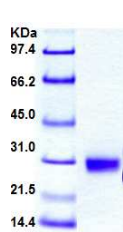
□ Cat. # CTHL22-N-25

Human Liver Cathepsin L

SIZE: 25 ug

Cathepsins (Union of two Greek words, kata:down and hepsin:boil) are proteases: proteins that break apart other proteins, found in many types of cells including those in all animals. There are approximately a dozen members of this family (designated Cathepsin A-E, G, H, K, L, S, V etc), which are distinguished by their structure, catalytic mechanism, and which proteins they cleave. Most of the members become activated at the low pH found in lysosomes. Thus, the activity of this family lies almost entirely within those organelles. Cathepsins have a vital role in mammalian cellular turnover, e.g. bone resorption. They degrade polypeptides and are distinguished by their substrate specificities.

Cathepsin L (*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 been reported in many organisms including fish, birds and mammals. The most powerful of the lysosomal proteases. It has a higher specific activity than cathepsin B and H in the degradation of a variety of physiological protein substrates. The level of cathepsin L is a strong predictor of relapse and survival following treatment of a primary breast tumor.



Source of Antigen

Human cathepsin L purified from liver using proprietary biochemical methods (Mol wt 25-29 Kda). It is supplied in buffer (20 mM malonate buffer, pH 5.5, with 1 mM EDTA, and 400 mM NaCl) or lyophilized in the same buffer. Lot sp. concn are specified on the vial.

All human derived material has been tested negative for HIV, HCV, and HbSAg. Nevertheless, all precautions should be taken and samples be treated as potentially hazardous.

Extinction Coefficient: =1.28

Lyophilized Purity: >= 95% by SDS-PAGE

Activity: Greater than or equal 0.5 U/mg. One unit is defined as the amount of enzyme that hydrolyzes one umole of Z-Phe-Arg-AFC per minute at 25oC in 400 mM Na Acetate, pH 5.5 with 4 mM EDTA and 8 mM DTT. **Recommended Usage**

ELISA, Western

References Armstrong, Andrea, Niklas Mattsson, Hanna Appelqvist, Camilla Janefjord, Linnea Sandin, Lotta Agholme, Bob Olsson et al. "Lysosomal Network Proteins as Potential Novel CSF Biomarkers for Alzheimer's Disease." Neuromolecular medicine (2013): 1-11

*This product is for In vitro research use only.

Related material available from ADI

Catalog# Prod. Description

CTHB11-A	Anti-Human Liver Cathepsin B IgG
CTHB11-C	Human Liver Cathepsin B protein control for Western blot
CTHB15-N-25	Cathepsin B, Human Liver
CTHD11-A	Anti-Human Liver Cathepsin D IgG
CTHD17-N-25	Cathepsin D, Human Liver
CTHG11-A	Anti-Human Neutrophil Cathepsin G IgG
CTHG20-N-25	Cathepsin G, Human Neutrophil
CTHH11-A	Anti-Human Liver Cathepsin H IgG
CTHH21-N-25	Cathepsin H, Human Liver
CTHL11-A	Anti-Human Liver Cathepsin L IgG
CTHL22-N-25	Cathepsin L, Human Liver
CTHS23-A	Anti-human Cathepsin S IgG
CTHS23-N-25	Cathepsin S, Human Spleen
RP-759	Recombinant (E.Coli) Human Cathepsin-D
RP-870	Recombinant Human Procathepsin K
RP-928	Recombinant (E.Coli) Human Cathepsin-L
SP-100801-5	Cathepsin G (77 - 83) (AA: His-Pro-Gln-Tyr-Asn-Gln-Arg)
SP-100802-2	Cathepsin S substrate (AA: Ac-Lys-Gln-Lys-Leu-Arg-AMC)
CTHS24-N-10	Recombinant (HEK) Human Cathepsin S protein (>95%, his-tag ow endotoxins)
CTHB16-N-10	Recombinant (HEK) Cathepsin B (CTSB/APPS/CPSB) (18-339aa; >95%, his-tag, low endotoxins)
CTSD18-N-10	Recombinant (HEK) Cathepsin D (CTSD) (full length, >95%, his-tag, low endotoxins)
CTHL23-N-10	Recombinant (HEK) Cathepsin L1 (CTSI1 (18-333, length, >95%, his-tag, low endotoxins)
CTHL24-N-10	Recombinant (HEK) Cathepsin L2 (CathepsinV) (18-384, full length, >95%, his-tag, low endotoxins)
CTS231-N-10	Recombinant (HEK) Cathepsin Z/P (CTS2) (24-303, full length, >95%, his-tag, low endotoxins)
CTHL22-N-25-Human-Cathepsin-L	150911SV