

# Recombinant human Cathepsin L protein

Catalog Number: ATGP3536

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

18-333aa

### UniProt No.

P07711

### NCBI Accession No.

NP\_001244901

### Alternative Names

Procathepsin L, Cathepsin L1, Major excreted protein, MEP, CTSL, CTSL1

## PRODUCT SPECIFICATION

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### Molecular Weight

38.3 kDa (339aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 10% glycerol

### Purity

> 85% by SDS-PAGE

### Endotoxin level

< 1 EU per 1ug of protein (determined by LAL method)

### Tag

His-Tag

### Application

SDS-PAGE

### Storage Condition

Can be stored at +2C to +8C for 1 week. For long term storage, aliquot and store at -20C to -80C. Avoid repeated freezing and thawing cycles.

## BACKGROUND

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### Description

CTSL, also known as cathepsin L1 isoform 1, is a lysosomal cysteine proteinase that plays a major role in intracellular protein catabolism. Its substrates include collagen and elastin, as well as alpha-1 protease inhibitor, a major controlling element of neutrophil elastase activity. The encoded protein has been implicated in several pathologic processes, including myofibril necrosis in myopathies and in myocardial ischemia, and in the renal

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tubular response to proteinuria. This protein, which is a member of the peptidase C1 family, is a dimer composed of disulfide-linked heavy and light chains, both produced from a single protein precursor. Multiple alternatively spliced transcript variants have been found for this gene. Recombinant Human CTSL protein was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

MGSSHHHHHH SGLVPRGSH MGSTLTFDHS LEAQWTKWKA MHNRLYGMNE EGWRRAVWEK NMKMIELHNQ  
EYREGKHSFT MAMNAFGDMT SEEFRQVMNG FQNRKPRKGK VFQEPLFYEA PRSVDWREKG YVTPVKNQGQ  
CGSCWAFSAT GALEGQMRK TGRILSLSEQ NLVDCSGPQG NEGCNGGLMD YAFQYVQDNG GLDSEESYPY EATEESCKYN  
PKYSVANDTG FVDIPKQEKA LMKAVATVGP ISVAIDAGHE SFLFYKEGIY FEPDCSSEDM DHGVLVVGYG FESTESDNNK  
YWLVKNSWGE EWGMGGYVKM AKDRRNHCGI ASAASYPTV

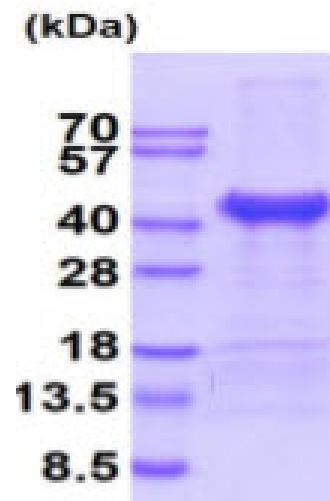
## General References

Bauer Y., et al. (2011) Hypertension. 57(4):795-801

Wei DH., et al. (2013) Int J Mol Med. 31(2):400-6

## DATA

### SDS-PAGE



3ug by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

15% SDS-PAGE (3ug)