

Human CellExp Cathepsin L1, human recombinant protein
CTSL1, MEP, CATL, CTSL
Catalog # PBV11032r**Specification**

Human CellExp Cathepsin L1, human recombinant protein - Product infoPrimary Accession
Calculated MW[P07711](#)

This protein is fused with 6×His tag at the C-terminus, has a calculated MW of 36.7 kDa. The predicted N-terminus is Thr 18 and Ala 114. DTT-reduced Protein migrates as 10 kDa and 34 kDa due to glycosylation, corresponding to the propeptide and the mature form respectively. KDa

Human CellExp Cathepsin L1, human recombinant protein - Additional InfoGene ID
Gene Symbol
Other Names
CTSL1, MEP, CATL, CTSL**1514**
CTSLGene Source
Source
Assay&Purity
Assay2&Purity2
Recombinant
Results

Human
HEK293 cells
SDS-PAGE; ≥98%
N/A;
Yes
Measured by its binding ability in a functional ELISA. Immobilized human CD74 at 5 µg/ml (100 µl/well) can bind biotinylated human CTSL1 with a linear range of 25 - 400 ng/ml.

Target/Specificity
Cathepsin L1**Application Notes**

Centrifuge the vial prior to opening. Reconstitute in sterile PBS, pH 7.4 to a concentration of 50 µg/ml. Do not vortex. This solution can be stored at 2-8°C for up to 1 month. For extended storage, it is recommended to store at -20°C.

Format
Lyophilized**Storage**

-20°C; Lyophilized from 0.22 µm filtered solution in 50 mM Sodium Acetate, pH 5.0 with 100 mM NaCl. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

Human CellExp Cathepsin L1, human recombinant protein - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Human CellExp Cathepsin L1, human recombinant protein - Images

Human CellExp Cathepsin L1, human recombinant protein - Background

Cathepsin L (CTSL1) also known as major excreted protein (MEP), is a member of the peptidase C1 family, is a dimer composed of disulfide-linked heavy and light chains linked by disulfide bonds. CTSL1 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. MEP has been implicated in several pathologic processes, including myofibril necrosis in myopathies and in myocardial ischemia, and in the renal tubular response to proteinuria. CTSL1 is important for the overall degradation of proteins in lysosomes. The specificity of MEP is close to that of papain. As compared to cathepsin B, cathepsin L exhibits higher activity toward protein substrates, but has little activity on Z - Arg - Arg - NHMec, and no peptidyl - dipeptidase activity. Human Cathepsin L activity is greatest under mildly acidic conditions, from pH 4.5 - 6.5. The stability of the enzyme decreases at higher pH values.

Human CellExp Cathepsin L1, human recombinant protein - References

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Bechtel S.,et al.BMC Genomics 8:399-399(2007).
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