

Human CellExp Cathepsin B, human recombinant protein
CTSB, CPSB, APPS
Catalog # PBV11030r**Specification****Human CellExp Cathepsin B, human recombinant protein - Product info**Primary Accession
Calculated MW[P07858](#)

This protein is fused with a 6×His tag at the C-terminus, has a calculated MW of 36.7 kDa (Pro) and 29 kDa (Mature). The predicted N-terminus is Arg18 (pro) or Phe74 (mature). DTT-reduced Protein migrates as 43 kDa and 34 kDa due to glycosylation. KDa

Human CellExp Cathepsin B, human recombinant protein - Additional InfoGene ID
Gene Symbol
Other Names
CTSB, CPSB, APPS**1508**
CTSBGene Source
Source
Assay&Purity
Assay2&Purity2
Recombinant
Results

Human
HEK293 cells
SDS-PAGE; ≥95%
N/A;
Yes
Measured by its ability to cleave the fluorogenic peptide substrate Z-LR-AMC. Measured in 100 µl reaction mixture containing 25 mM MES, pH 5.0, 0.01 µg rhCathepsin B, and 10 µM reaction substrate. The specific activity is >2800 pmol/min/ µg.

Target/Specificity
Cathepsin B**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 Tris-HCl and 150 mM NaCl, pH 8.0. Generally 5-8% Mannitol or trehalose is added as a protectant before lyophilization.

Human CellExp Cathepsin B, 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 B, human recombinant protein - Images

Human CellExp Cathepsin B, human recombinant protein - Background

Cathepsin B (CTSB) also known as APP secretase (APPS) and CPSB, is an enzymatic protein belonging to the peptidase C1 family. Cathepsin B / CTSB is synthesized as a proenzyme. Following removal of the signal peptide, the inactive proenzyme undergoes further modifications including removal of the pro region to result in the active enzyme. The catalytic activity of Cathepsin B / APPS contains: Hydrolysis of proteins with broad specificity for peptide bonds; preferentially cleaves -Arg-Arg-|-Xaa bonds in small molecule substrates (thus differing from cathepsin L); In addition to being an endopeptidase, shows peptidyl-dipeptidase activity, liberating C-terminal dipeptides. As a thiol protease, cathepsin B / CPSB is believed to participate in intracellular degradation and turnover of proteins and has also been implicated in tumor invasion and metastasis. Overexpression of cathepsin B has been associated with esophageal adenocarcinoma and other tumors.

Human CellExp Cathepsin B, human recombinant protein - References

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Cao L.,et al.Gene 139:163-169(1994).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
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