

Human CellExp™ Cathepsin B, human recombinant

CATALOG #: 7408-10 10 µg

ALTERNATE NAMES: CTSB, CPSB, APPS

SOURCE: HEK 293 cells (Arg 18 - Ile 339)

PURITY: ≥ 95% by SDS-PAGE gel

MOL. WEIGHT: This protein is fused with a 6xHis 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.

ENDOTOXIN LEVEL: <1 EU/µg by LAL method

FORM: Lyophilized

FORMULATION: 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.

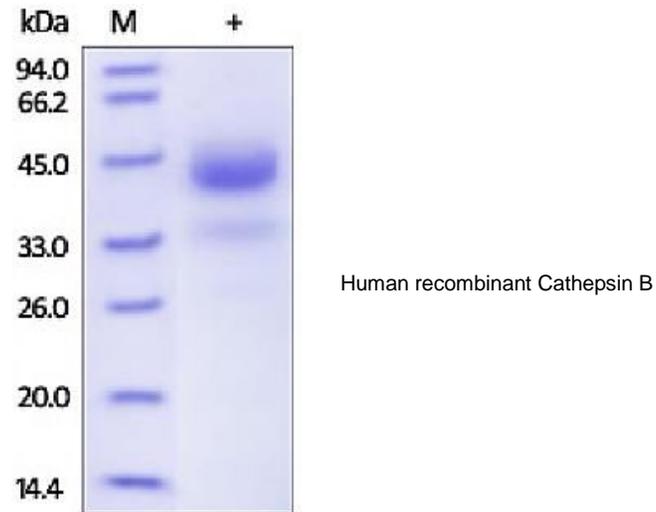
STORAGE CONDITIONS: Store at -20°C. After reconstitution, aliquot and store at -20°C and use within 3 months. Avoid repeated freezing and thawing cycles.

RECONSTITUTION: 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.

DESCRIPTION: 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-I-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.

BIOLOGICAL ACTIVITY: 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.



RELATED PRODUCTS:

- Human CellExp™ Cathepsin D, human recombinant (Cat. No. 7409-10)
- Human CellExp™ Cathepsin L1, human recombinant (Cat. No. 7410-10)
- Human CellExp™ Cathepsin S, human recombinant (Cat. No. 7277-10, -50, -1000)
- Cathepsin K, Active, human recombinant (Cat. No. 7600-5, -50)
- Cathepsin K, Active, mouse recombinant (Cat. No. 7597-5, -50)
- Cathepsin K, Active, rat recombinant (Cat. No. 7598-5, -50)
- Cathepsin B (active, human) (Cat. No. 1021-5)
- Cathepsin D (active, human) (Cat. No. 1022-5)
- Cathepsin H (active, human) (Cat. No. 1023-5)
- Cathepsin L, human recombinant (Cat. No. 1135-5, 100, 1000)
- Procathepsin K, human recombinant (Cat. No. 1026-10, -50, -1000)
- Procathepsin K, mouse recombinant (Cat. No. 1027-10, -50, -1000)
- Procathepsin K, rat recombinant (Cat. No. 1029-10, -50, -1000)

FOR RESEARCH USE ONLY! Not to be used in humans.