

# Recombinant Human Cathepsin D Protein

Catalog No.: RP00214 **Recombinant**

## Sequence Information

Species	Gene ID	Swiss Prot
Human	1509	P07339

### Tags

C-His

### Synonyms

CLN10;CPSD;HEL-S-130P;Cathepsin D;CTSD

## Product Information

Source	Purification
HEK293 cells	> 95% by SDS-PAGE.

Calculated MW	Observed MW
43.44 kDa	48-52 kDa

### Endotoxin

&lt; 0.1 EU/μg of the protein by LAL method.

### Formulation

Lyophilized from a 0.22 μm filtered solution of PBS, pH 7.4. Contact us for customized product form or formulation.

### Reconstitution

Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stabilizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

## Contact

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## Background

Cathepsin D (CTSD), a well known lysosomal aspartyl protease and belongs to the peptidase C1 family. It is expressed in most cells and overexpressed in breast cancer cells. It is a major enzyme in protein degradation in lysosomes, and also involved in the presentation of antigenic peptides. cathepsin D is essential for proteolysis of proteins regulating cell growth and tissue homeostasis. CTSD secreted from human prostate carcinoma cells are responsible for the generation of angiostatin, a potent endogenous inhibitor of angiogenesis, suggesting its contribution to the prevention of tumor growth and angiogenesis-dependent growth of metastases.

## Basic Information

### Description

Recombinant Human Cathepsin D Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Leu21-Leu412) of human Cathepsin D/CTSD (Accession #NP\_001900.1) fused with a 6×His tag at the C-terminus.

### Bio-Activity

Measured by its ability to cleave the fluorogenic peptide substrate, Mca-PLGL-Dpa-AR-NH<sub>2</sub>. The specific activity is >747 pmol/min/μg.

### Storage

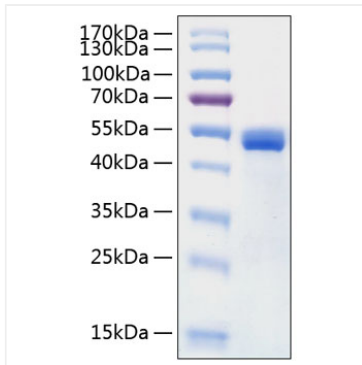
Store at -20°C. Store the lyophilized protein at -20°C to -80 °C up to 1 year from the date of receipt.

After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.

Avoid repeated freeze/thaw cycles.

## Validation Data

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Recombinant Human Cathepsin D Protein was determined by SDS-PAGE with Coomassie Blue, showing a band at 48-52 kDa.