

# Recombinant human Cystatin B protein

Catalog Number: ATGP3262

## PRODUCT INFORMATION

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### Expression system

E.coli

### Domain

1-98aa

### UniProt No.

P04080

### NCBI Accession No.

NP\_000091

### Alternative Names

Cystatin-B, Stefin B, PME, CST6

## PRODUCT SPECIFICATION

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### Molecular Weight

13 kDa (118aa) confirmed by MALDI-TOF

### Concentration

1mg/ml (determined by Bradford assay)

### Formulation

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 50mM NaCl

### Purity

> 95% by SDS-PAGE

### Endotoxin level

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

### Biological Activity

The IC50 value is < 3.0nM. The inhibitory function of Cystatin B on protease activity of papain was measured by a fluorometric assay using Z-FR-AMC at pH 7.5 at 25C.

### Tag

His-Tag

### Application

Enzyme Activity, 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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# Recombinant human Cystatin B protein

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## Description

CSTB, also known as Cystatin B is an anti-protease implicated in myoclonus epilepsy, a degenerative disease of the central nervous system. The cystatin superfamily encompasses proteins that contain multiple cystatin-like sequences. Some of the members are active cysteine protease inhibitors, while others have lost or perhaps never acquired this inhibitory activity. This protein is able to form a dimer stabilized by noncovalent forces and is thought to play a role in protecting against the proteases leaking from lysosomes. In cells, CSTB is located in the lysosomes and the cytoplasm, but also in the nucleus. Recombinant CSTB, fused to His-tag, was expressed in *E. coli* and purified by using conventional chromatography techniques.

## Amino acid Sequence

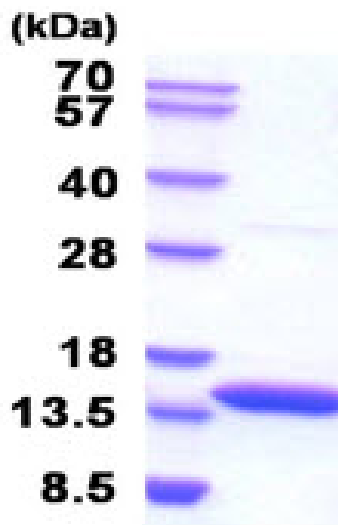
MGSSHHHHHH SGLVPRGSH MMCGAPSATQ PATAETQHIA DQVRSQLEEK ENKKFPVFKA VSFKSQVVAG TNYFIKVHVG  
DEDFVHLRVF QSLPHENKPL TLSNYQTNKA KHDELTYF

## General References

Turk V, et al (1991) FEBS Lett. 285 (2): 213-9.  
Jarvinen M, et al, (1988) Acta Histochem. 82 (1): 5-18.

## DATA

### SDS-PAGE



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

15% SDS-PAGE (3ug)