

Recombinant human Cystatin B protein

Catalog Number: ATGP3262

PRODUCT INFORMATION

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

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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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 SSGLVPRGSH 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

(kDa)

70
57

40

28

18

13.5

8.5



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

15% SDS-PAGE (3ug)