

Active Recombinant Mouse Cystatin B, His-tagged

Cat. No. Cstb-4002M Lot. No. (See product label)

SPECIFICATION

Product Overview

A DNA sequence encoding the mouse CTSB (P10605) (Met 1 - Phe 339) was fused with a polyhistidine tag at the C-terminus.

Species

Human

Source

Mouse

ProteinLength

1-339 a.a.

Description

Mouse cystatin-B, also known as CPI-B, Liver thiol proteinase inhibitor, Stefin-B, CSTB and CST6, is a cytoplasm and nucleus protein which belongs to the cystatin family. Cystatin-B / CSTB is an intracellular thiol proteinase inhibitor. Tightly binding reversible inhibitor of cathepsins L, H and B. Cystatin-B / CSTB is able to form a dimer stabilized by noncovalent forces, inhibiting papain and cathepsins I, h and b. Cystatin-B / CSTB is also thought to play a role in protecting against the proteases leaking from lysosomes. Defects in Cystatin-B / CSTB are the cause of progressive myoclonic epilepsy type 1 (EPM1) which is an autosomal recessive disorder characterized by severe, stimulus-sensitive myoclonus and tonic-clonic seizures.

Form

Lyophilized from sterile PBS , pH 7.4. Normally 5 % - 8 % trehalose and mannitol are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Purity

> 95 % as determined by SDS-PAGE

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Bio-activity	Measured by its ability to cleave the fluorogenic peptide substrate Z-LR-AMC. The specific activity is > 1,000 pmoles / min / g
Endotoxin	< 1.0 EU per µg of the protein as determined by the LAL method
Stability	Samples are stable for up to twelve months from date of receipt at -70µ
Predicted N terminal	His 18
Molecular Mass	The secreted recombinant mouse CTSB (pro form) consists of 333 amino acids and has a predicted molecular mass of 36.6 kDa. In SDS-PAGE under reducing conditions, the apparent molecular mass of rm CTSB is approximately 35-43 kDa due to glycosylation
Storage	Store it under sterile conditions at -70µ. It is recommended that the protein be aliquoted for optimal storage. Avoid repeated freeze-thaw cycles.

GENE INFORMATION

Gene Name	Cstb <i>cystatin B [Mus musculus]</i>
Official Symbol	Cstb
Synonyms	Cstb; Stfb; AA960480; cystatin B; cystatin-B; stefin-B
Gene ID	13014
mRNA Refseq	NM_007793
Protein Refseq	NP_031819

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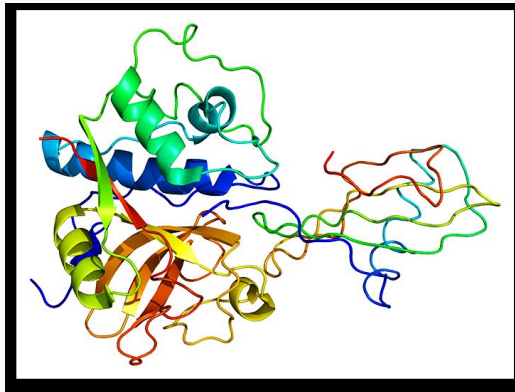
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UniProt ID [Q62426](#)

Chromosome Location 10 C1; 10 42.0 cM

Function cysteine-type endopeptidase inhibitor activity; endopeptidase inhibitor activity; peptidase inhibitor activity; protease binding

PDB rendering based on 1stf.



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