

Mouse Cystatin E / CST6 Protein (His Tag)

Catalog Number: 50916-M08H



Sino Biological Inc.
Biological Solution Specialist

General Information

Gene Name Synonym:

1110017E11Rik; ichq; N28197

Protein Construction:

A DNA sequence encoding the extracellular domain of mouse CST6 (NP_082899.1) (Met 1-Ala 152) was expressed, with a C-terminal polyhistidine tag.

Source: Mouse

Expression Host: Human Cells

QC Testing

Purity: > 90 % as determined by SDS-PAGE

Bio Activity:

Measured by its ability to inhibit papain cleavage of a fluorogenic peptide substrate ZFR-AMC, R&D Systems, Catalog # ES009. The IC₅₀ is < 20 nM.

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 -70 °C

Predicted N terminal: Glu 29

Molecular Mass:

The secreted recombinant mouse CST6 comprises 132 amino acids and has a calculated molecular mass of 15.2 kDa. As a result of glycosylation, the apparent molecular mass of rmCST6 is approximately 20 kDa in SDS-PAGE under reducing conditions.

Formulation:

Lyophilized from sterile PBS, pH 7.4

Normally 5 % - 8 % trehalose, mannitol and 0.01% Tween80 are added as protectants before lyophilization. Specific concentrations are included in the hardcopy of COA. Please contact us for any concerns or special requirements.

Usage Guide

Storage:

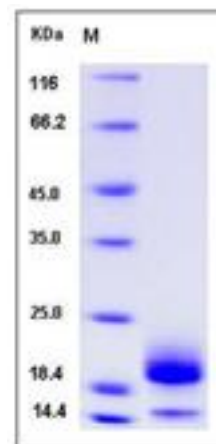
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Cystatin E/M, also referred to as CST6, is a member of type 2 cysteine proteinase inhibitors of the cystatin superfamily, and inhibits papain and cathepsin B. Cystatin E is a low molecular mass secreted protein existing in both a glycosylated (17 kDa) and an unglycosylated (14 kDa) form, with two characteristic intrachain disulfide bridges. Expression of cystatin M/E is found to be restricted to the epidermis, more specifically in the stratum granulosum, sweat glands, sebaceous glands, and the hair follicles. In addition to its function as a cysteine protease inhibitor, cystatin M/E also serves as a target for cross-linking by transglutaminases. Accordingly, cystatin M/E was suggested to be involved in barrier formation and maintenance. Furthermore, studies have revealed that cystatin M/E is frequently epigenetically inactivated during breast carcinogenesis, and thus be regarded as a candidate of tumour suppressor gene.

References

1. Ritonja A., *et al.*, (1985), Amino acid sequence of the intracellular cysteine proteinase inhibitor cystatin B from human liver. *Biochem. Biophys. Res. Commun.* 131:1187-1192.
2. Pennacchio L.A., *et al.*, (1996), Mutations in the gene encoding cystatin B in progressive myoclonus epilepsy (EPM1). *Science* 271:1731-1734.
3. Ghaemmaghami S., *et al.*, (2003), Global analysis of protein expression in yeast. *Nature* 425:737-741.

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