

Human Cystatin D / CST5 Protein (His Tag)



Sino Biological Inc.
Biological Solution Specialist

Catalog Number: 10506-H08H

General Information

Gene Name Synonym:

CST5; MGC71922

Protein Construction:

A DNA sequence encoding the pro form of human Cystatin D (NP_001891.2) (Met 1-Val 142) with a C-terminal polyhistidine tag was expressed.

Source: Human

Expression Host: Human Cells

QC Testing

Purity: > 95 % as determined by SDS-PAGE

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: Gly 21

Molecular Mass:

The secreted mature recombinant human CST5 comprises 133 amino acids with the predicted molecular mass of 15.2 kDa as estimated by 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:

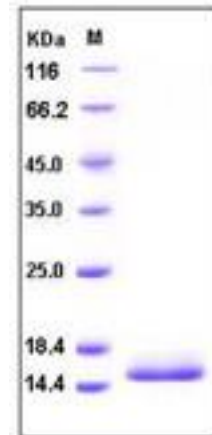
Store it under sterile conditions at -20°C to -80°C upon receiving. Recommend to aliquot the protein into smaller quantities for optimal storage.

Avoid repeated freeze-thaw cycles.

Reconstitution:

Detailed reconstitution instructions are sent along with the products.

SDS-PAGE:



Protein Description

Cystatins are natural inhibitors of papain-like (family C1) and legumain-related (family C13) cysteine peptidases. The mammalian cystatin superfamily members are of three major types, including the type 1 cystatins (stefins), type 2 cystatins and the kininogens. As a member of type 2 cystatin, cystatin D is a single-domain protein and also has cysteine residues that form disulfide bridges. In contrast with the wider distribution of all the other family 2 cystatins, cystatin D is tissue-restricted expressed and has been found only in saliva and tears. and meanwhile, it displays an inhibition profile with a preferential inhibition on cathepsin S, H, L. Although the exact functions are largely unknown, it has reported that cystatin D is involved in the inhibition of virus replication and apoptosis.

References

- 1.Freije J.P., *et al.*,(1991), Structure and expression of the gene encoding cystatin D, a novel human cysteine proteinase inhibitor. J. Biol. Chem. 266:20538-20543.
- 2.Freije J.P., *et al.*, (1993), Human cystatin D. cDNA cloning, characterization of the Escherichia coli expressed inhibitor, and identification of the native protein in saliva.J. Biol. Chem. 268:15737-15744.
- 3.Deloukas P., *et al.*,(2001), The DNA sequence and comparative analysis of human chromosome 20.Nature 414:865-871.

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