

Recombinant human Cystatin D protein

Catalog Number: ATGP3122

PRODUCT INFORMATION

Expression system

Baculovirus

Domain

26-142aa

UniProt No.

P28325

NCBI Accession No.

NP_001891.2

Alternative Names

Cystatin-D

PRODUCT SPECIFICATION

Molecular Weight

14.36 kDa (123aa)

Concentration

0.5mg/ml (determined by absorbance at 280nm)

Formulation

Liquid in. Phosphate-Buffered Saline (pH 7.4) containing 10% glycerol

Purity

> 90% by SDS-PAGE

Endotoxin level

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

Biological Activity

The IC50 value is < 2.0nM. The inhibitory function of Cystatin 5 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

SDS-PAGE, Enzyme Activity

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

CST5, also known as Cystatin-D, is a novel member of the cystatin superfamily. 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. There are three inhibitory families in the superfamily, including the type 1 cystatins (stefins), type 2 cystatins and the kininogens. The type 2 cystatin proteins are a class of cysteine proteinase inhibitors found in a variety of human fluids and secretions. Two alleles of the cystatin D gene (CST5), encoding protein variants with either Cys or Arg as residue 26 in their 122-residue polypeptide chains, are present in the population. Recombinant human CST5, fused to His-tag at C-terminus, was expressed in insect cell and purified by using conventional chromatography techniques.

Amino acid Sequence

QSRTLGGIHDATDLNDKSVQRALDFAISEY NKVINKDEYY SRPLQVMAAY QQIVGGVNYF FNVKFGRTTC TKSQPNLDNC
PFNDQPKLKE EEFCSFQINE VPWEDKISIL NYKCRKV<HHH HHH>

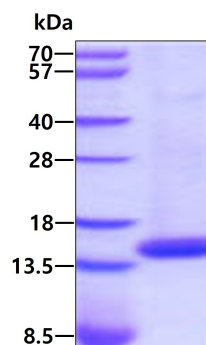
General References

Balbin M. et al. (1994) J Biol Chem. 269:23156-23162.

Alvarez-Fernandez M. et al. (2005) J Biol Chem. 280:18221-18228.

DATA

SDS-PAGE



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