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# Recombinant human Cystatin C protein

Catalog Number: ATGP2040

#### PRODUCT INFORMATION

#### **Expression system**

E.coli

#### **Domain**

27-146aa

#### UniProt No.

P01034

#### **NCBI Accession No.**

NP 000090

#### **Alternative Names**

Cystatin C, ARMD11, MGC117328, Cystatin-C

### PRODUCT SPECIFICATION

#### **Molecular Weight**

15.6 kDa (141aa) confirmed by MALDI-TOF

#### Concentration

0.25mg/ml (determined by Bradford assay)

#### **Formulation**

Liquid in. 20mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol

#### **Purity**

> 95% by SDS-PAGE

#### **Biological Activity**

The IC50 value is < 2.0nM. The inhibitory function of Cystatin 3 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**

# **Description**

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



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cystatins and the kininogens. The cystatin locus on chromosome 20 contains the majority of the type 2 cystatin genes and pseudogenes. CST3 is located in the cystatin locus and is the most abundant extracellular inhibitor of cysteine proteases, which is found in high concentrations in biological fluids and is expressed in virtually all organs of the body. Recombinant human CST3 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

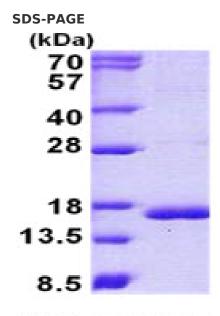
#### **Amino acid Sequence**

MGSSHHHHHH SSGLVPRGSH MSSPGKPPRL VGGPMDASVE EEGVRRALDF AVGEYNKASN DMYHSRALQV VRARKQIVAG VNYFLDVELG RTTCTKTQPN LDNCPFHDQP HLKRKAFCSF QIYAVPWQGT MTLSKSTCQD A

#### **General References**

Liu J. (2012) Transplant Proc. 44(5):1250-3.

#### **DATA**



15% SDS-PAGE (3ug)

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

