

# Active Recombinant Full Length human Cystatin C protein, His tagged

Cat. No. CST3-3666H Lot. No. (See product label)

## SPECIFICATION

### Product Overview

Recombinant human CST3 protein, fused to His-tag at N-terminus, was expressed in E. coli and purified by using conventional chromatography techniques.

### Species

Human

### Source

E.coli

### ProteinLength

1-146 aa

### 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 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, where they appear to provide protective functions. The cystatin locus on chromosome 20 contains the majority of the type 2 cystatin genes and pseudogenes. This gene is located in the cystatin locus and encodes 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. A mutation in this gene has been associated with amyloid angiopathy. Expression of this protein in vascular wall smooth muscle cells is severely reduced in both atherosclerotic and aneurysmal aortic lesions, establishing its role in vascular disease. In addition, this protein has

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	been shown to have an antimicrobial function, inhibiting the replication of herpes simplex virus. Alternative splicing results in multiple transcript variants encoding a single protein.
<b>Tag</b>	N-His
<b>Form</b>	Liquid
<b>Bio-activity</b>	The IC <sub>50</sub> value is < 2.0 nM. 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 25 centigrade.
<b>Molecular Mass</b>	15.6 kDa
<b>AA Sequence</b>	MGSSHHHHHSSGLVPRGSHMSSPGKPPRLVGGPMDASVEEEGVRRALDFAVGE YNKASNDMYHSRALQVVRARKQIVAGVNYFLDVELGRTTCTKTQPNLDNCPFHDQP HLKRKAFCSFQIYAVPWQGTMTLSKSTCQDA
<b>Purity</b>	> 95% by SDS-PAGE
<b>Applications</b>	Enzyme Activity, SDS-PAGE
<b>Storage</b>	Can be stored at +2 to +8 centigrade for 1 week. For long term storage, aliquot and store at -20 to -80 centigrade. Avoid repeated freezing and thawing cycles.
<b>Concentration</b>	0.25 mg/mL (determined by Bradford assay)
<b>Storage Buffer</b>	20 mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol
<b>References</b>	1. Liu J. (2012) Transplant Proc. 44(5):1250-3.

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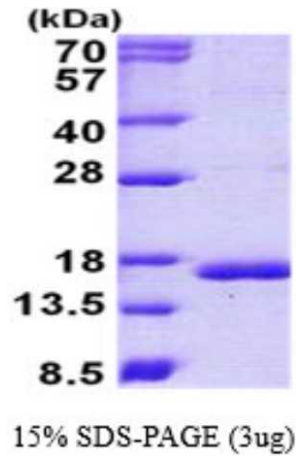
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**GENE INFORMATION**


<b>Gene Name</b>	CST3 cystatin C [ Homo sapiens (human) ]
<b>Official Symbol</b>	CST3
<b>Synonyms</b>	CST3; cystatin C; ARMD11; HEL-S-2; cystatin-C; bA218C14.4 (cystatin C); cystatin 3; epididymis secretory protein Li 2; gamma-trace; neuroendocrine basic polypeptide; post-gamma-globulin
<b>Gene ID</b>	1471
<b>mRNA Refseq</b>	NM_000099
<b>Protein Refseq</b>	NP_000090
<b>MIM</b>	604312
<b>UniProt ID</b>	P01034

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**SDS-PAGE**



3  $\mu$ g by SDS-PAGE under reducing condition and visualized by coomassie blue stain.

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