

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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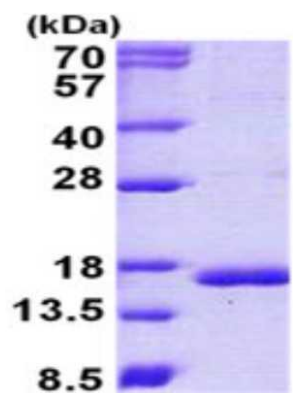
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	been shown to have an antimicrobial function, inhibiting the replication of herpes simplex virus. Alternative splicing results in multiple transcript variants encoding a single protein.
Tag	N-His
Form	Liquid
Bio-activity	The IC50 value is < 2.0 nM. 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.
Molecular Mass	15.6 kDa
AA Sequence	MGSSHHHHHHSSGLVPRGSHMSSPGKPPRLVGGPMDASVEEEGVRRALDFAVGE YNKASNDMYHSRALQVVRARKQIVAGVNYFLDVELGRTTCTKTQPNLDNCPFHDQP HLKRKAFCFSFQIYAVPWQGTMTLSKSTCQDA
Purity	> 95% by SDS-PAGE
Applications	Enzyme Activity,SDS-PAGE
Storage	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.
Concentration	0.25 mg/mL (determined by Bradford assay)
Storage Buffer	20 mM Tris-HCl buffer (pH 8.0) containing 0.1M NaCl, 20% glycerol
References	1. Liu J. (2012) Transplant Proc. 44(5):1250-3.

GENE INFORMATION

Gene Name	CST3 cystatin C [Homo sapiens (human)]
Official Symbol	CST3
Synonyms	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
Gene ID	1471
mRNA Refseq	NM_000099
Protein Refseq	NP_000090
MIM	604312
UniProt ID	P01034

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SDS-PAGE

15% SDS-PAGE (3ug)

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

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