

# Recombinant Human Cystatin 7/CST7 Protein (Fc Tag)

Catalog Number:PKSH031813



**Note:** Centrifuge before opening to ensure complete recovery of vial contents.

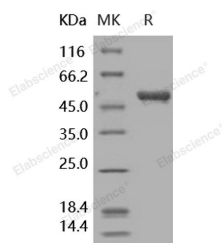
## Description

<b>Synonyms</b>	Cystatin-F;Cystatin-7;Cystatin-Like Metastasis-Associated Protein;CMAP;Leukocystatin;CST7
<b>Species</b>	Human
<b>Expression Host</b>	HEK293 Cells
<b>Sequence</b>	Met 1-His 145
<b>Accession</b>	NP_003641.3
<b>Calculated Molecular Weight</b>	41.3 kDa
<b>Observed molecular weight</b>	50 kDa
<b>Tag</b>	C-hFc
<b>Bioactivity</b>	Measured by its ability to inhibit active Cathepsin L cleavage of a fluorogenic peptide substrate Z-LR-AMC (R&D Systems, Catalog#ES008). The IC50 value is < 5 nM.

## Properties

<b>Purity</b>	> 97 % as determined by reducing SDS-PAGE.
<b>Endotoxin</b>	< 1.0 EU per µg of the protein as determined by the LAL method.
<b>Storage</b>	Generally, lyophilized proteins are stable for up to 12 months when stored at -20 to -80°C. Reconstituted protein solution can be stored at 4-8°C for 2-7 days. Aliquots of reconstituted samples are stable at < -20°C for 3 months.
<b>Shipping</b>	This product is provided as lyophilized powder which is shipped with ice packs.
<b>Formulation</b>	Lyophilized from sterile 100mM Glycine, 10mM NaCl, 50mM Tris, pH 7.5 Normally 5 % - 8 % trehalose, mannitol and 0.01 % Tween80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
<b>Reconstitution</b>	Please refer to the printed manual for detailed information.

## Data



> 97 % as determined by reducing SDS-PAGE.

## Background

The cystatin superfamily members are important natural cysteine protease inhibitors present in a wide variety of organisms and are divided into three classes. Cystatin F, also known as leukocystatin and CMAP (Cystatin-like Metastasis-Associated Protein), is a type 2 cystatin and its expression is limited to hematopoietic cells, with the highest expression levels being observed in monocytes, dendritic cells, and certain types of T-cells. Furthermore, cystatin F mRNA becomes

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up-regulated during dendritic cell maturation, and thus suggests a specific role of cystatin F in immune regulation. Cystatin F is produced as a dimer, an inactive cathepsin inhibitor which is activated by chemical reduction. In addition, Cystatin F and its homologues have been observed expressing in various human cancer cell lines established from malignant tumors, and thus indicates a new diagnosis and prevention approach of certain human carcinomas metastasis.

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