Recombinant Human Cystatin 7/CST7 Protein (His Tag)

Catalog Number: PKSH031812

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

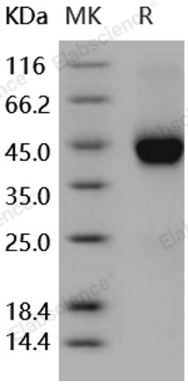
Description

Species	Human
Source	HEK293 Cells-derived Human Cystatin 7/CST7 protein Met 1-His 145, with an C-terminal His
Calculated MW	16.1 kDa
Observed MW	44 kDa
Accession	NP_003641.3
Bio-activity	Measured by its ability to inhibit active Cathepsin L cleavage of a fluorogenic peptide substrate Z-LR-AMC (R &D Systems, Catalog # ES008). The IC_{50} value is < 6 nM.

Properties

Purity	> 92% as determined by reducing SDS-PAGE.
Endotoxin	< 1.0 EU per μg of the protein as determined by the LAL method.
Storage	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.
Shipping	This product is provided as lyophilized powder which is shipped with ice packs.
Formulation	Lyophilized from sterile PBS, pH 7.4 Normally 5% - 8% trehalose, mannitol and 0.01% Tween 80 are added as protectants before lyophilization. Please refer to the specific buffer information in the printed manual.
Reconstitution	Please refer to the printed manual for detailed information.

Data



> 92 % 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 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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