



Recombinant Protein Technical Manual

Recombinant Human Cystatin 7/CST7 Protein (His Tag)(Active)

RPES1108

Product Data:

Product SKU: RPES1108

Size: 10µg

Species: Human

Expression host: HEK293 Cells

Uniprot: NP_003641.3

Protein Information:

Molecular Mass: 16.1 kDa

AP Molecular Mass: 44 kDa

Tag: C-His

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 IC50 value is <6 nM.

Purity: > 92 % as determined by reducing SDS-PAGE.

Endotoxin: < 1.0 EU per µg as determined by the LAL method.

Storage: 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

Reconstitution: Please refer to the printed manual for detailed information.

Application:

Synonyms: Cystatin-F; Cystatin-7; Cystatin-Like Metastasis-Associated Protein; CMAP; Leukocystatin; CST7

Immunogen Information:

Sequence: Met 1-His 145

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.