Recombinant Human Cathepsin S Protein

Catalog No.: RP00181

Sequence Information

Species
Human

Gene ID
1520

Swiss Prot
P25774

Tags
C-His

Synonyms
CTSS

Product Information

Source
HEK293 cells

Purification
≥ 95 % as determined by SDS-PAGE.

Calculated MW
36.66 kDa

Observed MW
37-40 kDa

Endotoxin
< 0.1 EU/μg of the protein by LAL method.

Formulation
Lyophilized from a 0.22 μm filtered solution of 50mM MES,100mM NaCl, pH6.5.Contact us for customized product form or formulation.

Reconstitution
Centrifuge the vial before opening. Reconstitute to a concentration of 0.1-0.5 mg/mL in sterile distilled water. Avoid vortex or vigorously pipetting the protein. For long term storage, it is recommended to add a carrier protein or stablizer (e.g. 0.1% BSA, 5% HSA, 10% FBS or 5% Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Background

Cathepsin S (CTSS), one of the lysosomal proteinases, has many important physiological functions in the nervous system, especially in process of extracellular matrix degradation and endocellular antigen presentation. Cathepsin S is expressed in the lysosome of antigen presenting cells, primarily dendritic cells, B-cells and macrophages. Cathepsin S is most well known for its critical function in the proteolytic digestion of the invariant chain chaperone molecules, thus controlling antigen presentation to CD4+ T-cells by major histocompatibility complex (MHC) class II molecules or to NK1.1+ T-cells via CD1 molecules. Cathepsin S also appears to participate in direct processing of exogenous antigens for presentation by MHC class II to CD4+ T-cells, or in cross-presentation by MHC class I molecules to CD8+ T-cells. In addition, it has been implicated in the pathogenesis of several diseases such as Alzheimer's disease and degenerative disorders associated with the cells of the mononuclear phagocytic system.

Basic Information

Description
Recombinant Human Cathepsin S Protein is produced by HEK293 cells expression system. The target protein is expressed with sequence (Gln17-Ile331) of human Cathepsin S/CTSS (Accession #NP_004070.3) fused with an 8×His tag at the C-terminus.

Activity
Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE-Nval-WRK(Dnp)-NH2. The specific activity is >1390 pmol/min/μg.

Shipping
Lyophilized proteins are shipped at ambient temperature.
Liquid proteins are shipped at frozen temperature with dry ice.
Upon receipt, store it immediately at the temperature recommended below.

Storage
Store at -20℃

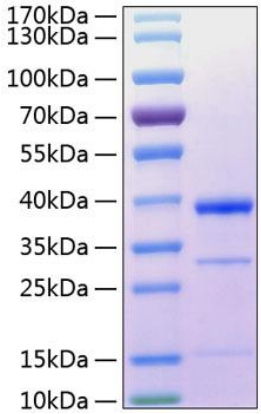
Operational Notes
For your safety and health, please wear a lab coat and disposable gloves for handling.

Contact

400-999-6126
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www.abclonal.com.cn

For research use only. Not for therapeutic or diagnostic purposes.
Please visit http://abclonal.com for a complete listing of recommended products.

Validation Data



Recombinant Human Cathepsin S Protein was determined by SDS-PAGE under reducing conditions with Coomassie Blue.