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Datasheet for ABIN7519746
Cathepsin S Protein (CTSS) (His tag)

Overview

Quantity:	10 µg
Target:	Cathepsin S (CTSS)
Origin:	Mouse
Source:	HEK-293 Cells
Protein Type:	Recombinant
Biological Activity:	Active
Purification tag / Conjugate:	This Cathepsin S protein is labelled with His tag.

Product Details

Purpose:	Active Recombinant Mouse Cathepsin S/CTSS Protein
Sequence:	VCSVAMEQLQ RDPTLDYHWD LWKKTKEY KDKNEEEVRR LIWEKNLKF MIHNLEYSMG MHTYQVGMND MGDMTNEEIL CRMGALRIPR QSPKTVTFRS YSNRTLPTV DWREKGCVTE VKYQGSCGAC WAFSAVGALE GQLKLTGKL ISLSAQLVD CSNEEKYGNK GCGGGYMTEA FQYIIDNGGI EADASYPYKA TDEKCHYNSK NRAATCSRYI QLPFGDEDAL KEAVATKGPV SVGIDASHSS FFFYKSGVVD DPSCTGNVNH GVLVVGYGTL DGKDYWLKVN SWGLNFGDQG YIRMARNNKN HCGIASYCSY PEI
Specificity:	Val18-Ile340
Purity:	> 95 % by SDS-PAGE.
Sterility:	0.22 µm filtered
Endotoxin Level:	< 0.1 EU/µg of the protein by LAL method.
Biological Activity Comment:	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVE- Nval-

Product Details

WRK(Dnp)-NH₂. The specific activity is >212 pmol/ min/μg, as measured under the described conditions.

Target Details

Target: Cathepsin S (CTSS)

Alternative Name: Cathepsin S/CTSS ([CTSS Products](#))

Background: Description: 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.

Name: Cathepsin S, Ctss, Cats,CTSS

Gene ID: 13040

UniProt: [070370](#)

Pathways: [Activation of Innate immune Response](#), [Toll-Like Receptors Cascades](#)

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

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 stabilizer (e.g. 0.1 % BSA, 5 % HSA, 10 % FBS or 5 % Trehalose), and aliquot the reconstituted protein solution to minimize free-thaw cycles.

Handling

Buffer:	Lyophilized from a 0.22 µm filtered solution of PBS, pH 7.4.
Storage:	-20 °C,-80 °C
Storage Comment:	Store the lyophilized protein at -20°C to -80°C for long term. After reconstitution, the protein solution is stable at -20°C for 3 months, at 2-8°C for up to 1 week.