Datasheet for ABIN7194690

Cathepsin S Protein (CTSS) (His tag)

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1 Image

Overview

Quantity:	50 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:	Recombinant Mouse Cathepsin S/CTSS Protein (His Tag)(Active)
Sequence:	Met 1-Ile 340
Characteristics:	A DNA sequence encoding the full length of mouse CTSS (AAB94925.1) (Met 1-Ile 340) was expressed, with a C-terminal polyhistidine tag.
Purity:	> 90 % as determined by SDS-PAGE
Endotoxin Level:	< 1.0 EU per µg of the protein as determined by the LAL method.
Biological Activity Comment:	Measured by its ability to cleave the fluorogenic peptide substrate, Mca-RPKPVENval-WRK (Dnp)-NH2, AnaSpec, Catalog # 27114.The specific activity is >300 pmoles/min/µg.(Activation description: The enzyme achieves its activity under acidic pH)

Target Details

Target:	Cathepsin S (CTSS)

Target Details

Alternative Name:	Cathepsin S/CTSS (CTSS Products)
Background:	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. CTSS is synthesized as inactive precursor of 331 amino acids consisting of a 15-aa signal peptide, a propeptide of 99 aa, and a mature polypeptide of 217 aa. It is activated in the lysosomes by a proteolytic cleavage of the propeptide. Cathepsin S is expressed in the lysosome of antigen presenting cells, primarily dendritic cells, B-cells and macrophages. Compared with other lysosomal cysteine proteases, cathepsin S has displayed some unique characteristics. 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, although direct evidence is still lacking, in its secreted form cathepsin S is implicated in degradation of the extracellular matrix, which may contribute to the pathology of a number of diseases, including arthritis, atherosclerosis, neurological diseases and chronic obstructive pulmonary disease. Synonym: Cathepsin S, CTSS
Molecular Weight:	37.6 kDa
Pathways:	Activation of Innate immune Response, Toll-Like Receptors Cascades

Application Details

Restrictions:	For Research Use only

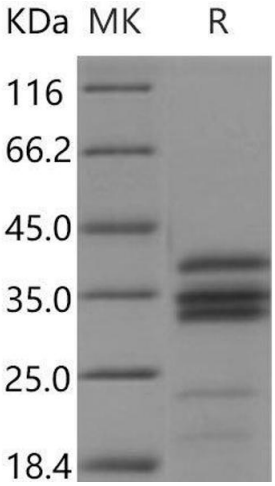
Handling

Format:	Lyophilized
Reconstitution:	Please refer to the printed manual for detailed information.
Buffer:	Lyophilized from sterile PBS, pH 7.4
Storage:	4 °C,-20 °C,-80 °C
Storage Comment:	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

Handling

samples are stable at < -20°C for 3 months.

Images



Western Blotting

Image 1.