

Cathepsin S from Human, recombinant

Cat. No. NATE-1702

Lot. No. (See product label)

Introduction

Description

Cathepsin S (CTSS) is a lysosomal cysteine protease of the papain family and may participate in the degradation of antigenic proteins to peptides for presentation on MHC class II molecules. 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. The deduced amino acid sequence contains only one potential N-glycosylation site located in the propeptide. Compared with the abundant cathepsins B, L and H, cathepsin S shows a restricted tissue distribution, with highest levels in spleen, heart, and lung. In addition, evidences indicate that cathepsin S generates amyloid beta-peptide from amyloidogenic fragments of amyloid precursor protein (APP) in the endosomal/lysosomal compartment, and is implicated in the pathogenesis of Alzheimer's disease and Down Syndrome.

Synonyms

CTSS; cathepsin S; EC 3.4.22.27; FLJ50259; MGC3886

Product Information

Species	Human
Source	E. coli
Form	Lyophilized from proprietary buffer.
EC Number	EC 3.4.22.27
CAS No.	71965-46-3
Molecular Weight	23.9 kDa (115-331 aa)
Purity	> 90% by SDS-PAGE
Activity	>2000 mU/mg
Unit Definition	1 U = Digestion of 1 μ mole/min of Ac-VVR-AFC substrate (K144-100).

Storage and Shipping Information

Storage	Stable for at least 1 year as supplied. Briefly spin down the vial and reconstitute in 50 mM sodium acetate, 100 mM NaCl (pH 5.5) to 0.1-1 mg/ml and store at -80°C. Avoid repeated freeze and thaw cycles.
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