

Cathepsin D from Human, recombinant

Cat. No. NATE-1707

Lot. No. (See product label)

Introduction

Description Cathepsin D is a lysosomal aspartyl protease composed of a protein dimer of disulfide-linked heavy and light chains, both produced from a single protein precursor. It is an estrogen-regulated protein associated with tissue breakdown. Levels of cathepsin D have been positively correlated with recurring breast cancers of both node negative and node positive types. Additionally cathepsin D has been associated with amyloid formation in Alzheimer's plaques. Cathepsin D is produced initially as a pre-pro-enzyme which gets transported to lysosomes via endosomes in most cell types. In endosomes, it gets proteolyzed by unidentified proteases by removal of the pro-peptide to generate active single-chain Cathepsin D; while in lysosomes, further processing by cysteine cathepsins B and L generates mature, active double-chain Cathepsin D.

Synonyms CTSD; 9025-26-7; EC 3.4.23.5; CLN10; CPSD; HEL-S-130P; Procathepsin D

Product Information

Species	Human
Source	E. coli
Form	Freeze-Dried
EC Number	EC 3.4.23.5
CAS No.	9025-26-7
Molecular Weight	45.1 kDa
Purity	> 80% by SDS-PAGE
Activity	>100 pmol/min/mg
Reaction	ATP + nucleoside monophosphate = ADP + nucleoside diphosphate
Notes	Many nucleotides can act as acceptor; other nucleoside triphosphates can act instead of ATP. Requires Mg ²⁺ .

Usage and Packaging

Reconstitution Reconstitute to 1 mg/ml in water.

Storage and Shipping Information

Storage Store at -20°C. Stable for at least 6 months as supplied. Reconstitute to 1 mg/ml in sterile water, store at -80°C in aliquots and use within 6 months after reconstitution. Avoid repeated freeze-thaw cycles.