

Active Native Human Cathepsin D

Cat. No. CTSD-189H **Lot. No.** (See product label)

SPECIFICATION

Product Overview

Species	Human
Source	Human Plasma
Description	Cathepsin D 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. As cathepsin D activity is increased by cigarette smoke, the enzyme may contribute to lung tissue damage in smokers.
Form	Frozen
Bio-activity	Activity: ≥ 300 units per mg protein. One unit is defined as the amount of enzyme that digests hemoglobin-releasing peptides which are soluble in 10% TCA. The reaction is measured by an increase of an A 280 of 1.0 per 60 minutes at 37°C . Substrate: acid denatured hemoglobin, pH 1.8 (0.2% in reaction mixture). Buffer: 100 mM formate, pH 3.3.
Molecular Mass	MW 42,000
Purity	$\geq 95\%$ by SDS-PAGE

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Usage	For research use or for use in further manufacturing.
Quality Control Test	Shown to be non reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.
Stability	>1 year
Storage	<=>
Storage Buffer	2 mM Na Phosphate, pH 6.5

GENE INFORMATION

Gene Name	CTSD cathepsin D [Homo sapiens]
Official Symbol	CTSD
Synonyms	CTSD; cathepsin D; cathepsin D (lysosomal aspartyl protease) , CPSD; ceroid lipofuscinosis; neuronal 10; CLN10; lysosomal aspartyl protease; lysosomal aspartyl peptidase; ceroid-lipofuscinosis, neuronal 10; CPSD; MGC2311;
Gene ID	1509
mRNA Refseq	NM_001909
Protein Refseq	NP_001900
MIM	116840
UniProt ID	P07339

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Chromosome Location	11p15.5
Pathway	Ceramide signaling pathway, organism-specific biosystem; Direct p53 effectors, organism-specific biosystem; LKB1 signaling events, organism-specific biosystem; Lysosome, organism-specific biosystem; Lysosome, conserved biosystem; Tuberculosis, organism-specific biosystem; Tuberculosis, conserved biosystem;
Function	aspartic-type endopeptidase activity; peptidase activity;

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