

## Active Native Human Cathepsin D

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

### SPECIFICATION

<b>Species</b>	Human
<b>Source</b>	Human Plasma
<b>Description</b>	<p>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.</p>
<b>Form</b>	Frozen
<b>Bio-activity</b>	<p>Activity: <math>\geq 300</math> 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 .</p> <p>Substrate: acid denatured hemoglobin, pH 1.8 (0.2% in reaction mixture). Buffer: 100 mM formate, pH 3.3.</p>
<b>Molecular Mass</b>	MW 42,000
<b>Purity</b>	$\geq 95\%$ by SDS-PAGE
<b>Usage</b>	For research use or for use in further manufacturing.

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<b>Quality Control Test</b>	Shown to be non reactive for HBsAg, anti-HCV, anti-HBc, and negative for anti-HIV 1 & 2 by FDA approved tests.
<b>Stability</b>	>1 year
<b>Storage</b>	<=>
<b>Storage Buffer</b>	2 mM Na Phosphate, pH 6.5

## GENE INFORMATION

<b>Gene Name</b>	CTSD cathepsin D [ Homo sapiens ]
<b>Official Symbol</b>	CTSD
<b>Synonyms</b>	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;
<b>Gene ID</b>	1509
<b>mRNA Refseq</b>	NM_001909
<b>Protein Refseq</b>	NP_001900
<b>MIM</b>	116840
<b>UniProt ID</b>	P07339
<b>Chromosome Location</b>	11p15.5

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**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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