

Active Native Human Cathepsin D protein

Cat. No. CTSD-26411TH Lot. No. (See product label)

SPECIFICATION

Product Overview	Native Human Cathepsin D protein purified from Human Liver.
Species	Human
Source	Human Liver
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	Lyophilized from 2 mM Na phosphate, pH 6.5.
Bio-activity	≥ 300 units per mg protein.
Molecular Mass	42000
Purity	$\geq 95\%$ by SDS-PAGE
Unit Definition	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 37centigrade . Substrate: acid denatured hemoglobin, pH 1.8 (0.2% in reaction mixture). Buffer: 100 mM formate, pH 3.3.

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Notes	Prepared from tissue 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	Store <= -20 centigrade
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
Chromosome Location	11p15.5
Pathway	Ceramide signaling pathway, organism-specific biosystem; Direct p53 effectors, organism-specific biosystem; LKB1 signaling events, organism-specific biosystem;

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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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