

## Recombinant Human CTSD, His-tagged

**Cat. No.** CTSD-218H    **Lot. No.** (See product label)

### SPECIFICATION

<b>Product Overview</b>	Recombinant Human CTSD MS Standard Protein, C13 and N15-labeled (CTSD / Cathepsin D, Heavy Labeled) Ser 19 - Leu 412 (Accession # NP_001900) was produced in human 293 cells (HEK293) with fully chemically defined cell culture medium to obtain >99% incorpor
<b>Species</b>	Human
<b>Source</b>	HEK293
<b>ProteinLength</b>	19-412 a.a.
<b>Description</b>	Cathepsin D is also known as CTSD, CPSD, which belongs to the peptidase A1 family. Cathepsin D can be cleaved into the following 2 chains: cathepsin D light chain and cathepsin D heavy chain, which is expressed in the aorta extracellular space (at protein level). The catalytic activity of Cathepsin D is specificity similar to, but narrower than, that of pepsin A. Cathepsin D does not cleave the 4-Gln- -His-5 bond in B chain of insulin. Cathepsin D involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.
<b>Form</b>	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
<b>Molecular Mass</b>	CTSD / Cathepsin D, Heavy Labeled is fused with a polyhistidine tag at the C-terminus, and has a calculated MW of 43.6 kDa. The predicted N-terminus is Ser 19. DTT-reduced Protein migrates as 45-55 kDa in SDS-PAGE due to

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	glycosylation.CTSD / Cathepsin D,
<b>Endotoxin</b>	Less than 1.0 EU per µg of the CTSD / Cathepsin D, Heavy Labeled by the LAL method.
<b>Purity</b>	>95% as determined by SDS-PAGE.
<b>Storage</b>	Avoid repeated freeze-thaw cycles.No activity loss was observed after storage at:In lyophilized state for 1 year (4oC); After reconstitution under sterile conditions for 3 months (-70oC).
<b>Reconstitution</b>	See Certificate of Analysis for reconstitution instructions and specific concentrations.

## 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

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<b>UniProt ID</b>	P07339
<b>Chromosome Location</b>	11p15.5
<b>Pathway</b>	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;
<b>Function</b>	aspartic-type endopeptidase activity; peptidase activity;

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