

Recombinant Human CTSD, His-tagged

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

SPECIFICATION

Product Overview	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
Species	Human
Source	HEK293
ProteinLength	19-412 a.a.
Description	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.
Form	Lyophilized from 0.22 µm filtered solution in PBS, pH7.4. Normally Mannitol or Trehalose are added as protectants before lyophilization.
Molecular Mass	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,
Endotoxin	Less than 1.0 EU per µg of the CTSD / Cathepsin D, Heavy Labeled by the LAL method.
Purity	>95% as determined by SDS-PAGE.
Storage	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).
Reconstitution	See Certificate of Analysis for reconstitution instructions and specific concentrations.

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

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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; 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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