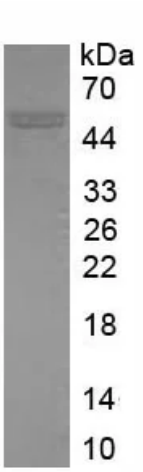
Active Cathepsin D (CTSD)

Catalog#:PHH12637

概述（Summary）

别称（Alternative Names）	CPSD; CLN10; Lysosomal Aspartyl Protease; Ceroid-Lipofuscinosis,Neuronal 10
纯度（Purity）	Greater than 97% as determined by reducing SDS-PAGE.
内毒素（Endotoxin level）	Please contact with the lab for this information
蛋白构建（Construction）	【Leu21-Leu412】
Accession #	P07339
表达宿主（Host）	293F
种属（Species）	Homo sapiens (Human)
预测分子量（Predicted MW）	44.2 kDa
制剂（Form）	Lyophilized from a 0.2 μm filtered solution of PBS, pH7.4, containing 0.01% SKL, 1mM DTT, 5% Trehalose and Proclin300.
运输方式（Shipping）	The product is shipped with ice bag. Upon receipt, store it immediately at the temperature listed below.
稳定性&储存（Stability &Storage）	12 months at -20°C to -80°C in lyophilized state.6 months at -20°C to -80°C under sterile conditions after reconstitution.7-10 days at 2°C to 8°C under sterile conditions after reconstitution.Please minimize freeze-thaw cycles.
复溶（Reconstitution）	Reconstitute in 20mM Tris, 150mM NaCl (PH8.0) to a concentration of 0.1-1.0 mg/mL. Do not vortex.
背景介绍（References）	Acid protease active in intracellular protein breakdown. Plays a role in APP processing following cleavage and activation by ADAM30 which leads to APP degradation. Involved in the pathogenesis of several diseases such as breast cancer and possibly Alzheimer disease.

电泳图（SDS-PAGE image）



Greater than 97% as determined by reducing SDS-PAGE.

活性图（Bioactivity image）

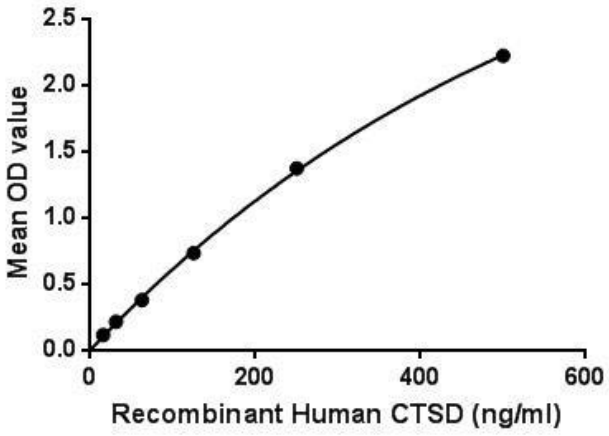


Figure. The binding activity of CTSD with HSP90b1. Cathepsin D (CSTD) is an aspartic protease that depends critically on protonation of its active site Asp residue. Along with Asp-protonation, lower pH also leads to conformational switch in cathepsin-D: the N-terminal segment of the protease moves out of the active site as pH drops. Similar to other aspartic protainases, cathepsin D accommodates up to 8 amino acid residues in the binding cleft of the active site. The main physiological functions of cathepsin D consist of metabolic degradation of intracellular proteins, activation and degradation of polypeptide hormones and growth factors, activation of enzymatic precursors, processing of enzyme activators and inhibitors, brain antigen processing and regulation of programmed cell death. Besides, Heat Shock Protein 90kDa Beta 1 (HSP90b1) has been identified as an interactor of CSTD, thus a binding ELISA assay was conducted to detect the interaction of recombinant human CSTD and recombinant human HSP90b1. Briefly, CSTD were diluted serially in PBS, with 0.01% BSA (pH 7.4). Duplicate samples of 100µL were then transferred to HSP90b1-coated microtiter wells and incubated for 2h at 37℃. Wells were washed with PBST and incubated for 1h with anti-CSTD pAb, then aspirated and washed 3 times. After incubation with HRP labelled secondary antibody, wells were aspirated and washed 3 times. With the addition of substrate solution, wells were incubated 15-25 minutes at 37℃. Finally, add 50µL stop solution to the wells and read at 450nm immediately. The binding activity of CSTD and HSP90b1 was shown in Figure 1, and this effect was in a dose dependent manner.

注意事项（Note）

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