

Cathepsin D (human liver, purified)**CATALOG NO.:** 6203**SIZE:** 25 µg

DESCRIPTION: Cathepsin D purified from human liver tissue tested to be negative for HbsAg, anti-HBc, anti-HCV, and anti-HIV-1 and -2. Cathepsin D¹ is a ubiquitous lysosomal aspartyl protease that functions in protein degradation and apoptosis²⁻⁴. It can also be secreted from the cell and is implicated in disease states such as tumor growth and metastasis^{4,5}.

SPECIFIC ACTIVITY: >300 U/mg protein. One unit will cause an increase in absorbance (A₂₈₀) of 1.0 during a 60-minute period, as a quantification of the production of 10%-TCA-soluble peptides resulting from Cathepsin D digestion of acid-denatured hemoglobin (0.2%) at 37°C, in 100 mM formate buffer, pH 3.3.

PURITY: >95% by SDS-PAGE.

USAGE: Study enzyme kinetics, cleave target substrates, and screen for inhibitors⁶.

SUPPLIED AS: 25 µg protein lyophilized with phosphate buffer. Reconstitute just before first use by adding 25-50 ul of water; freeze in aliquots.

STORAGE: -80°C. Avoid repeated freeze/defrost cycles.

Note: This enzyme is stable when stored under the above conditions. Procedures such as dilution of the enzyme followed by refreezing could lead to loss of activity.

REFERENCES:

1. P.L. Faust *et al. Proc. Natl. Acad. Sci. USA* 1985 **82** 4910
2. T. Takahashi and J. Tang *Methods Enzymol.* 1981 **80** 565
3. D.E. Johnson *Leukemia* 2000 **14** 1695
4. L.R. Roberts *et al. Cell Biochem. Biophys.* 1999 **30** 71
5. S. Wittlin *et al. Eur. J. Biochem.* 1999 **265** 384
6. R. Ando *et al. Bioorg. Med. Chem.* 1999 **7** 571

**FOR LABORATORY RESEARCH USE ONLY. NOT FOR
DIAGNOSTIC OR THERAPEUTIC USE.**

041511emc

