

Procathepsin L, Human Recombinant

CATALOG #: 7581-5 5 µg
 7581-100 100 µg
 7581-1000 1 mg

SOURCE: *E. coli*

ALTERNATIVE NAMES: CTSL, CTSL1

FORMULATION: 1 mg/ml in 25 mM Na₂HPO₄, 500 mM NaCl, pH 7.0.

PURITY: ≥90% by SDS-PAGE

MOL. WT.: 39.4 kDa (18-333 aa + N-terminal poly-his tag)

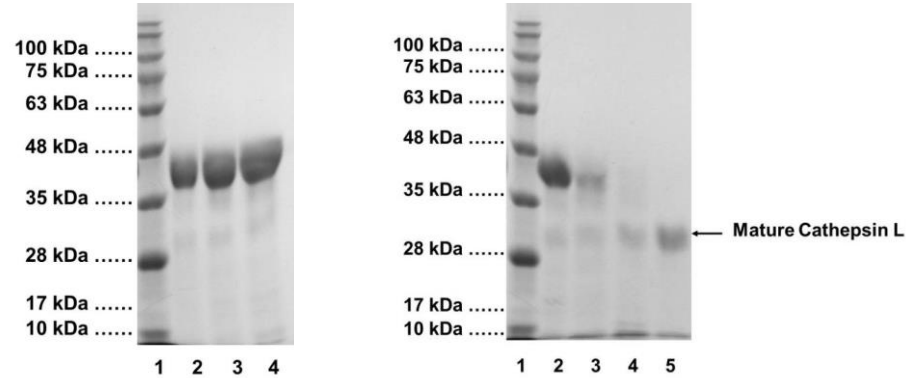
STORAGE CONDITIONS: Store at -80°C, stable for at least 1 year as supplied. After dilution to 0.2 mg/ml, aliquot and store at -80°C. Avoid repeated freezing and thawing cycles.

BACKGROUND: Cathepsin L is a lysosomal protease that can be secreted from the cell and is implicated to play a role in protein degradation, arthritis, apoptosis, and cancer.

ACTIVITY ASSAY: BioVision's Procathepsin L can be auto-catalytically activated to mature Cathepsin L (~24 kDa) by adding an equal volume of 0.2 M NaOAc, 5 mM EDTA pH 4.0 containing fresh 5 mM DTT at RT. The enzyme is fully activated within 30 min of incubation at RT. After activation mature Cathepsin L is highly auto-proteolytic at pH 4.0, and care must be taken to avoid self-proteolysis. If the activated enzyme is not used immediately, methylmethanthsulfonate (1mM final concentration; MeS-SO₂Me; MMTS) could be added and sample should be frozen at -80°C. The activity can be then restored by adding L-cysteine (3 M excess over MMTS) to the enzyme solution.

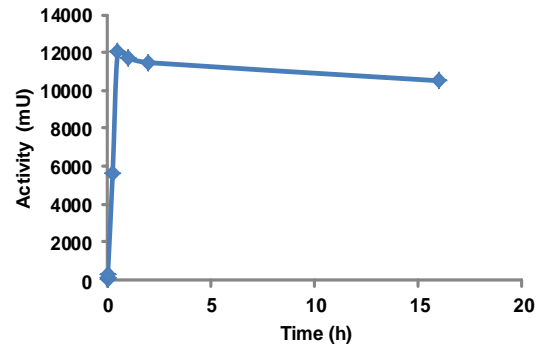
SPECIFIC ACTIVITY: > 10000 mU/mg (1 U = digestion of 1 µmole of Z-Phe-Arg-AFC substrate (K142-100) per minute at 37°C in 50 mM Sodium Acetate, 100 mM NaCl, pH 5.5).

For Research Use Only! Not to be used in humans.



SDS-PAGE (12%) of h-Procathepsin L:
 1: Protein Marker
 2: Human Procathepsin L (10 µg)
 3: Human Procathepsin L (15 µg)
 4: Human Procathepsin L (20 µg)

SDS-PAGE (12%) of activation of h-Procathepsin L:
 1: Protein Marker
 2: Human Procathepsin L (5 µg)
 3 to 5: Human Procathepsin L (5 µg) after 1, 15 and 30 min of activation at low pH



Activation of Human Procathepsin L as monitored by BioVision's Cathepsin L activity assay kit, Cat # K142-100

RELATED PRODUCTS:

- Human CellExp™ Cathepsin B, human recombinant (Cat. No. 7408-10)
- Human CellExp™ Cathepsin D, human recombinant (Cat. No. 7409-10)
- Human CellExp™ Cathepsin S, human recombinant (Cat. No. 7277-10, -50, -1000)
- Human CellExp™ Cathepsin L1, human recombinant (Cat. No. 7410-10)
- Cathepsin K, Active, human recombinant (Cat. No. 7600-5, -50)
- Cathepsin K, Active, mouse recombinant (Cat. No. 7597-5, -50)
- Cathepsin K, Active, rat recombinant (Cat. No. 7598-5, -50)
- Cathepsin B (active, human) (Cat. No. 1021-5)
- Cathepsin D (active, human) (Cat. No. 1022-5)
- Cathepsin H (active, human) (Cat. No. 1023-5)
- Procathepsin K, human recombinant (Cat. No. 1026-10, -50, -1000)
- Procathepsin K, mouse recombinant (Cat. No. 1027-10, -50, -1000)
- Procathepsin K, rat recombinant (Cat. No. 1029-10, -50, -1000)