SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Cathepsin L antibody

Catalog Number: SL1508R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Cathepsin L
Immunogen:	KLH conjugated synthetic peptide derived from human cathepsin L1 proprotein: 71-170/334
Purification:	affinity purified by Protein A
Concentration:	1mg/ml
Storage:	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. Shipped at 4℃. Store at -20 °C for one year. Avoid repeated freeze/thaw cycles.
Applications:	WB=1:500-2000 IHC-P=1:100-500 IHC-F=1:100-500 IF=1:100-500 Flow-Cyt=1ug/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Rat, (predicted: Mouse)
Predicted MW.:	19/30/37kDa
Subcellular Location:	cytoplasmic
Background:	The protein encoded by this gene is a lysosomal cysteine proteinase that plays a major role in intracellular protein catabolism. Its substrates include collagen and elastin, as well as alpha-1 protease inhibitor, a major controlling element of neutrophil elastase activity. The encoded protein has been implicated in several pathologic processes, including myofibril necrosis in myopathies and in myocardial ischemia, and in the renal tubular response to proteinuria. This protein, which is a member of the peptidase C1 family, is a dimer composed of disulfide-linked heavy and light chains, both produced from a single protein precursor. At least two transcript variants encoding the same protein have been found for this gene.

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	Function: Important for the overall degradation of proteins in lysosomes. **Subunit:** Dimer of a heavy and a light chain linked by disulfide bonds. **Subcellular Location:** Lysosome. **Similarity:** Belongs to the peptidase C1 family. **Database links:** **Entrez Gene:** 1514 Human **Entrez Gene:** 13039 Mouse **Entrez Gene:** 25697 Rat Omim: 116880 Human **SwissProt:** P07711 Human **SwissProt:** P06797 Mouse **SwissProt:** P07154 Rat **Unigene:** 726015 Human **Unigene:** 930 Mouse **Unigene:** 1294 Rat Synthesis and Degradation（Synthesis and Degradation） Cathepsin L (CL) is a cysteine protease belonging to the papain family, stored in lysosomes as a zymogen. It participates in many specific physiological processes, such as activation of prohormones, antigen presentation, and development of tissues and organs. Under pathological conditions, cell damage caused by various factors (such as pathogenic microorganisms, inflammatory factors, oxidative stress, etc.) can degrade cellular components or interstitial matrix components, including laminin, type IV collagen fibers, and fibronectin, etc., and is associated with many human diseases such as Tumour invasion and metastasis, arthritis, osteoporosis, Alzheimer's disease, multiple sclerosis, and other chronic inflammatory diseases.

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[VALIDATION IMAGES]

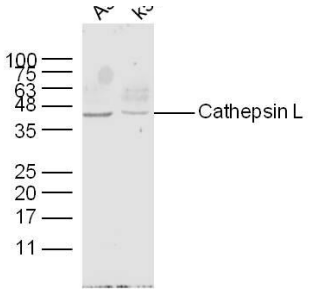


Figure 1. Sample: A549 Cell (Human) Lysate at 30 ug K562 Cell (Human) Lysate at 30 ug Primary: Anti- Cathepsin L (SL1508R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 19/30/37 kD Observed band size: 40 kD

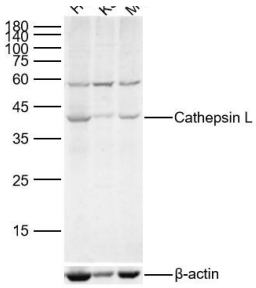


Figure 2. Sample: Lane 1: Human HUVEC cell Lysates Lane 2: Human K562 cell Lysates Lane 3: Human MCF-7 cell Lysates Primary: Anti-Cathepsin L (SL1508R) at 1/300 dilution Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution Predicted band size: 19/30/37kDa Observed band size: 40kDa

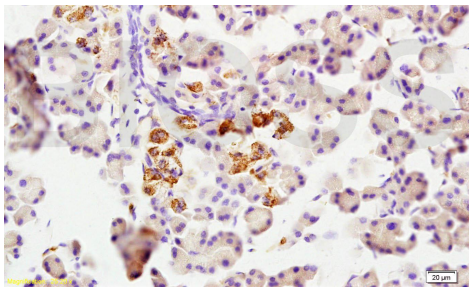


Figure 3. Tissue/cell: rat pancreas tissue; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Cathepsin L Polyclonal Antibody, Unconjugated(SL1508R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

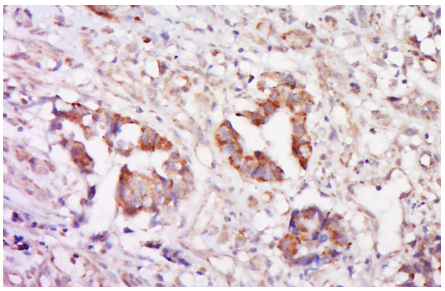


Figure 4. Tissue/cell: human cervical carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded; Antigen retrieval: citrate buffer (0.01M, pH 6.0), Boiling bathing for 15min; Block endogenous peroxidase by 3% Hydrogen peroxide for 30min; Blocking buffer (normal goat serum,C-0005) at 37℃ for 20 min; Incubation: Anti-Cathepsin Polyclonal Antibody, Unconjugated(SL1508R) 1:500, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

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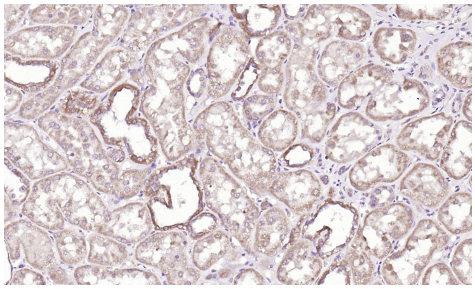


Figure 5. Paraformaldehyde-fixed, paraffin embedded (Human kidney); Antigen retrieval by boiling in sodium citrate buffer (pH6.0) for 15min; Block endogenous peroxidase by 3% hydrogen peroxide for 20 minutes; Blocking buffer (normal goat serum) at 37°C for 30min; Antibody incubation with (Cathepsin L) Polyclonal Antibody, Unconjugated (SL1508R) at 1:200 overnight at 4°C, followed by operating according to SP Kit(Rabbit) (sp-0023) instructionsand DAB staining

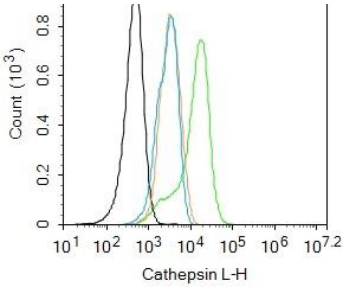


Figure 6. Blank control:A549. Primary Antibody (green line): Rabbit Anti-Cathepsin L antibody (SL1508R) Dilution: 1ug/Test; Secondary Antibody: Goat anti-rabbit IgG-FITC Dilution: 0.5ug/Test. Protocol The cells were fixed with 4% PFA (10min at room temperature)and then permeabilized with 0.1% PBST for 20 min at room temperature.The cells were then incubated in 5%BSA to block non-specific protein-protein interactions for 30 min at room temperature.Cells stained with Primary Antibody for 30 min at room temperature. The secondary antibody used for 40 min at room temperature. Acquisition of 20,000 events was performed

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