SunLong Biotech Co.,LTD
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[Primary Antibody]

Rabbit Anti-Cathepsin B antibody

Catalog Number: SL1500R

FOR RESEARCH USE ONLY

[DATASHEET]

Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Target:	Cathepsin B
Immunogen:	KLH conjugated synthetic peptide derived from human Cathepsin B heavy chain: 251-339/339
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=1μg/Test （Paraffin sections need antigen repair） not yet tested in other applications. optimal dilutions/concentrations should be determined by the end user.
Reactivity:	Human, Mouse, Rat
Predicted MW.:	23/28/37kDa
Subcellular Location:	cytoplasmic
Background:	The protein encoded by this gene is a lysosomal cysteine proteinase composed of a dimer of disulfide-linked heavy and light chains, both produced from a single protein precursor. It is also known as amyloid precursor protein secretase and is involved in the proteolytic processing of amyloid precursor protein (APP). Incomplete proteolytic processing of APP has been suggested to be a causative factor in Alzheimer disease, the most common cause of dementia. Overexpression of the encoded protein, which is a member of the peptidase C1 family, has been associated with esophageal adenocarcinoma and other tumors. At least five transcript variants encoding the same protein have been found for this gene. [provided by RefSeq, Jul 2008]

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	Function: Thiol protease which is believed to participate in intracellular degradation and turnover of proteins. Has also been implicated in tumor invasion and metastasis. **Subunit:** Dimer of a heavy chain and a light chain cross-linked by a disulfide bond. Interacts with SRPX2. **Subcellular Location:** Lysosome. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV. **Similarity:** Belongs to the peptidase C1 family. **Database links:** **Entrez Gene:** 1508 Human **Entrez Gene:** 13030 Mouse **Entrez Gene:** 64529 Rat Omim: 116810 Human **SwissProt:** P07858 Human **SwissProt:** P10605 Mouse **SwissProt:** P00787 Rat **Unigene:** 520898 Human **Unigene:** 236553 Mouse **Unigene:** 472420 Mouse **Unigene:** 100909 Rat Synthesis and Degradation（Synthesis and Degradation） Tissue protein enzyme B (CB) participates in the invasion and metastasis process of Tumour. It can promote the proliferation of Tumour blood vessels and enhance the motility of Tumour cells. The transcription as well as expression levels of tissue protein enzyme B are positively correlated with Tumour prognosis. cathepsin B belongs to cysteine protein enzyme, It is closely related to various physiological and pathological processes in the human body. CathepsinB (cathepsin B,CB)It is mainly present in lysosomes, It exerts its proteolytic function under physiological conditions. However, under certain specific conditions, CB can also be detected in the extracellular matrix when present. Currently，Some scholars have used CB in research on Alzheimer's disease (AD).

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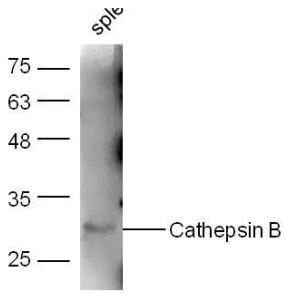
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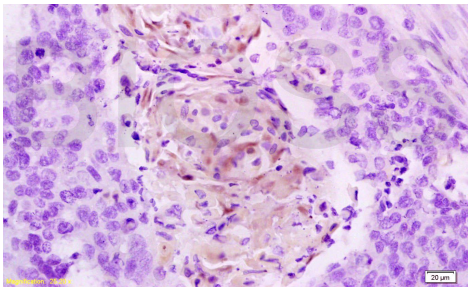
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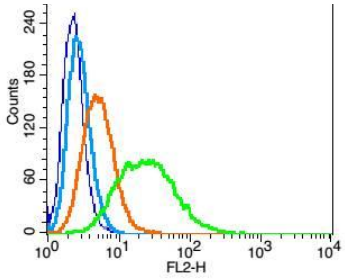
[VALIDATION IMAGES]



Sample:
Spleen (Mouse) Lysate at 40 ug
Primary: Anti-Cathepsin B (SL1500R) at 1/300 dilution
Secondary: IRDye800CW Goat Anti-Rabbit IgG at 1/20000 dilution
Predicted band size: 46/28 kD
Observed band size: 30 kD



Tissue/cell: Human esophageal carcinoma; 4% Paraformaldehyde-fixed and paraffin-embedded;
Antigen retrieval: citrate buffer (1M, 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°C for 20 min;
Incubation: Anti-Cathepsin B Polyclonal Antibody, Unconjugated(SL1500R) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining



Blank control: RSC96(blue). Primary Antibody:Rabbit Anti- Cathepsin B antibody(SL1500R), Dilution: 1μg in 100 μL 1X PBS containing 0.5% BSA; Isotype Control Antibody: Rabbit IgG(orange) ,used under the same conditions); Secondary Antibody: Goat anti-rabbit IgG-PE(white blue), Dilution: 1:200 in 1 X PBS containing 0.5% BSA.
Protocol
The cells were fixed with 2% paraformaldehyde (10 min) . Antibody (SL1500R, 5μg /1x10^6 cells) were incubated for 30 min on the ice, followed by 1 X PBS containing 0.5% BSA + 1 0% goat serum (15 min) to block non-specific protein-protein interactions. Then the Goat Anti-rabbit IgG/PE antibody was added into the blocking buffer mentioned above to react with the primary antibody of SL1500R at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.

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