bs-1500R **[Primary Antibody]**

Cathepsin B Rabbit pAb

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DATASHEET

Host: Rabbit **Isotype:** IgG

Clonality: Polyclonal

GeneID: 1508 **SWISS:** P07858

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°C. Store at -20°C for one year. Avoid repeated freeze/thaw cycles.

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]

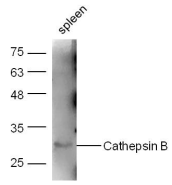
Applications: **WB** (1:500-2000)
IHC-P (1:100-500)
IHC-F (1:100-500)
IF (1:100-500)
Flow-Cyt (1µg/Test)

Reactivity: Human, Mouse, Rat

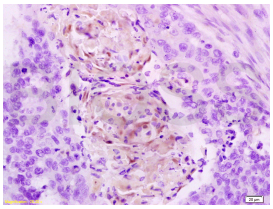
Predicted MW.: 23/28/37 kDa

Subcellular Location: Cytoplasm

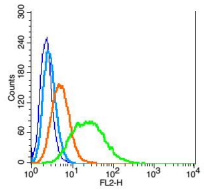
VALIDATION IMAGES



Sample: Spleen (Mouse) Lysate at 40 ug Primary: Anti-Cathepsin B (bs-1500R) 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 (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°C for 20 min; Incubation: Anti-Cathepsin B Polyclonal Antibody, Unconjugated(bs-1500R) 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(bs-1500R), 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 (bs-1500R, 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 bs-1500R at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.

SELECTED CITATIONS

- **[IF=10.19]** Xingliang Dai. et al. Crosstalk between microglia and neural stem cells influences the relapse of glioblastoma in GBM immunological microenvironment. CLIN IMMUNOL. 2023 Jun;251:109333 IHC ;Human. 37088298
- **[IF=8.9]** Wenlan Yu. et al. Long-term oral tribasic copper chloride exposure impedes cognitive function and disrupts mitochondrial metabolism by inhibiting mitophagy in rats. ENVIRON POLLUT. 2023 Nov;336:122474 WB ;Rat. 37652230
- **[IF=4.372]** Lin Tianji. et al. Methylmercury induces lysosomal membrane permeabilization through JNK-activated Bax lysosomal translocation in neuronal cells. Toxicol Lett. 2022 Jan;: IF ;Human. 34999165
- **[IF=2.438]** Liru Li. et al. Rapamycin Pretreatment Alleviates Cerebral Ischemia/Reperfusion Injury in Dose-Response Manner Through Inhibition of the Autophagy and NFκB Pathways in Rats:. Dose-Response. 2020;18(3): WB,IF ;Rat. 32874166
- **[IF=0.18]** Liu, B., et al. "Autophagy activation aggravates neuronal injury in the hippocampus of vascular dementia rats." Neural Regeneration Research 9.13 (2014): 1288. IHC ;="Rat". 25221581