

Cathepsin B Rabbit pAb

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Catalog # AP52109

Product Information

Application	WB, IHC-P, IHC-F, IF
Primary Accession	P07858
Reactivity	Rat, Human, Mouse
Host	Rabbit
Clonality	Polyclonal
Calculated MW	37822
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human Cathepsin B heavy chain
Epitope Specificity	251-339/339
Isotype	IgG
Purity	affinity purified by Protein A
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR LOCATION	Lysosome. Melanosome. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.
Background Descriptions	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]

Additional Information

Gene ID	1508
Other Names	Cathepsin B, 3.4.22.1, APP secretase, APPS, Cathepsin B1, Cathepsin B light chain, Cathepsin B heavy chain, CTSB, CPSB
Dilution	WB=1:500-2000,IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500,Flow-Cyt=1 µg/Test
Storage	Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody

is stable for at least two weeks at 2-4 °C.

Protein Information

Name	CTSB
Synonyms	CPSB
Function	Thiol protease which is believed to participate in intracellular degradation and turnover of proteins (PubMed: 12220505). Cleaves matrix extracellular phosphoglycoprotein MEPE (PubMed: 12220505). Involved in the solubilization of cross-linked TG/thyroglobulin in the thyroid follicle lumen (By similarity). Has also been implicated in tumor invasion and metastasis (PubMed: 3972105).
Cellular Location	Lysosome. Melanosome. Secreted, extracellular space {ECO:0000250 UniProtKB:A1E295}. Apical cell membrane {ECO:0000250 UniProtKB:P10605}; Peripheral membrane protein {ECO:0000250 UniProtKB:P10605}; Extracellular side {ECO:0000250 UniProtKB:P10605}. Note=Identified by mass spectrometry in melanosome fractions from stage I to stage IV (PubMed:17081065) Localizes to the lumen of thyroid follicles and to the apical membrane of thyroid epithelial cells (By similarity) {ECO:0000250 UniProtKB:P10605, ECO:0000269 PubMed:17081065}
Tissue Location	Expressed in the stratum spinosum of the epidermis. Weak expression is detected in the stratum granulosum

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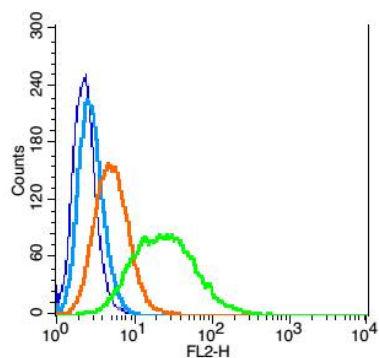
References

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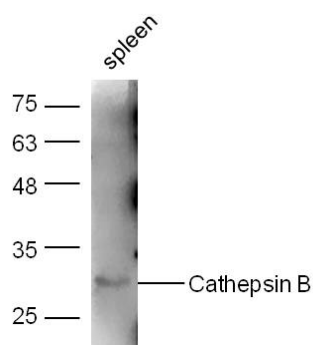
Images

Blank control: RSC96(blue). Primary Antibody:Rabbit Anti-Cathepsin B antibody(AP52109), Dilution: 1 µg 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.

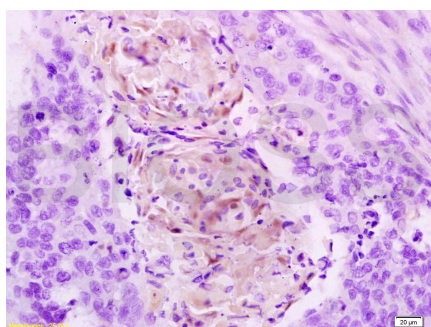
Protocol
The cells were fixed with 2% paraformaldehyde (10 min) . Antibody (AP52109, 5 µg /1x10⁶ cells) were incubated



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 AP52109 at 1/200 dilution for 30 min on ice. Acquisition of 20,000 events was performed.



Sample:
Spleen (Mouse) Lysate at 40 ug
Primary: Anti-Cathepsin B (AP52109) 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(AP52109) 1:200, overnight at 4°C, followed by conjugation to the secondary antibody(SP-0023) and DAB(C-0010) staining

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.