10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

CATB Antibody (Center)

Affinity Purified Rabbit Polyclonal Antibody (Pab)

Catalog # AP7367C

Specification

CATB Antibody (Center) - Product Information

Application	**FC, IHC-P, WB,E**
Primary Accession	P07858
Other Accession	Q4R5M2
Reactivity	**Human**
Predicted	**Monkey**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**Rabbit IgG**
Antigen Region	**198-227**

CATB Antibody (Center) - Additional Information

Gene ID 1508

Other Names
Cathepsin B, APP secretase, APPS, Cathepsin B1, Cathepsin B light chain, Cathepsin B heavy chain, CTSB, CPSB

Target/Specificity
This CATB antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 198-227 amino acids from the Central region of human CATB.

Dilution
FC~~1:10~50
IHC-P~~1:10~50
WB~~1:1000
E~~Use at an assay dependent concentration.

Format
Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
CATB Antibody (Center) is for research use only and not for use in diagnostic or therapeutic procedures.

CATB Antibody (Center) - 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}

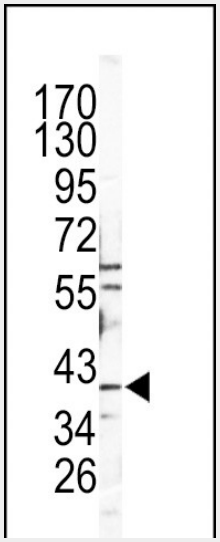
Tissue Location
Expressed in the stratum spinosum of the epidermis. Weak expression is detected in the stratum granulosum

CATB Antibody (Center) - Protocols

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

CATB Antibody (Center) - Images



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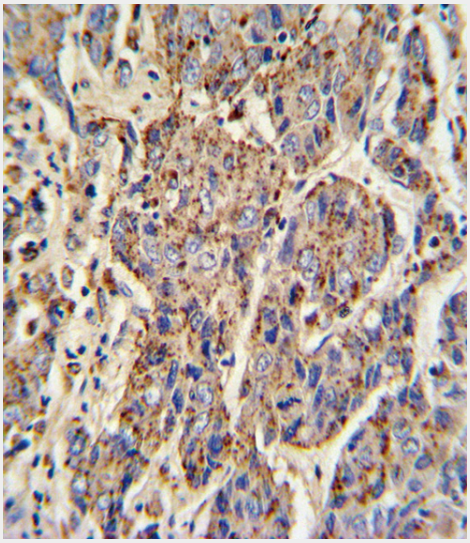
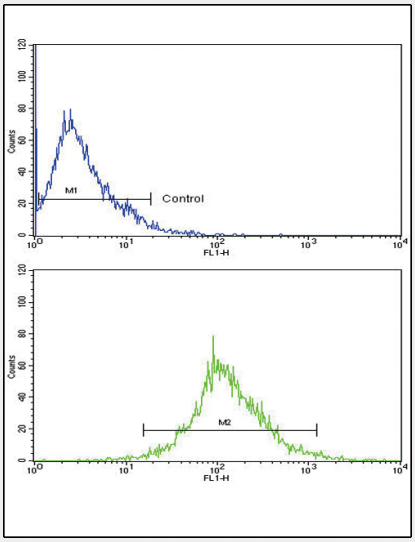
Western blot analysis of CATB Antibody (Center) (Cat.# AP7367c) in Y79 cell line lysates (35ug/lane). CATB (arrow) was detected using the purified Pab.



Formalin-fixed and paraffin-embedded human hepatocarcinoma with CATB Antibody (Center), which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated.



Flow cytometric analysis of HepG2 cells using CATB Antibody (Center)(bottom histogram) compared to a negative control cell (top histogram). FITC-conjugated goat-anti-rabbit secondary antibodies were used for the analysis.

CATB Antibody (Center) - Background

The protein CATB 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 protein, which is a member of the peptidase C1 family, has been associated with esophageal adenocarcinoma and other tumors.

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CATB Antibody (Center) - References

Zhang,H., J. Immunol. 182 (11), 6993-7000 (2009)
Duncan,J.A., J. Immunol. 182 (10), 6460-6469 (2009)

CATB Antibody (Center) - Citations

- Effects of the lysosomal destabilizing drug siramesine on glioblastoma in vitro and in vivo.