

**Anti-Cathepsin B Picoband Antibody**  
Catalog # ABO11767**Specification**

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**Anti-Cathepsin B Picoband Antibody - Product Information**

Application	<b>WB</b>
Primary Accession	<a href="#">P07858</a>
Host	<b>Rabbit</b>
Reactivity	<b>Human</b>
Clonality	<b>Polyclonal</b>
Format	<b>Lyophilized</b>

**Description**

Rabbit IgG polyclonal antibody for Cathepsin B(CTSB) detection. Tested with WB in Human.

**Reconstitution**

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

**Anti-Cathepsin B Picoband Antibody - 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

**Calculated MW**

37822 MW KDa

**Application Details**

Western blot, 0.1-0.5 µg/ml, Human<br>

**Subcellular Localization**

Lysosome. Melanosome. Secreted, extracellular space . Identified by mass spectrometry in melanosome fractions from stage I to stage IV.

**Protein Name**

Cathepsin B

**Contents**

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na<sub>2</sub>HPO<sub>4</sub>, 0.05mg Na<sub>3</sub>N.

**Immunogen**

E.coli-derived human Cathepsin B recombinant protein (Position: L80-D333). Human Cathepsin B shares 83% and 84% amino acid (aa) sequences identity with mouse and rat Cathepsin B, respectively.

**Purification**

Immunogen affinity purified.

### Cross Reactivity

No cross reactivity with other proteins

### Storage

**At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.**

### Sequence Similarities

Belongs to the peptidase C1 family.

## Anti-Cathepsin B Picoband Antibody - Protein Information

**Name** CTSB

**Synonyms** CPSB

### Function

Thiol protease which is believed to participate in intracellular degradation and turnover of proteins (PubMed: [12220505](http://www.uniprot.org/citations/12220505)). Cleaves matrix extracellular phosphoglycoprotein MEPE (PubMed: [12220505](http://www.uniprot.org/citations/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](http://www.uniprot.org/citations/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

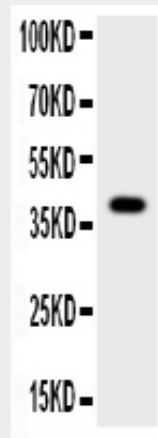
Expressed in the stratum spinosum of the epidermis. Weak expression is detected in the stratum granulosum

## Anti-Cathepsin B Picoband Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

## Anti-Cathepsin B Picoband Antibody - Images



Anti-Cathepsin B Picoband antibody, ABO11767-1.jpg All lanes: Anti-Cathepsin B (ABO11767) at 0.5ug/ml WB: HEPG2 Whole Cell Lysate at 40ug Predicted bind size: 38KD Observed bind size: 38KD

### **Anti-Cathepsin B Picoband Antibody - Background**

Cathepsin B is an enzymatic protein belonging to the peptidase or protease families. In humans, it is coded by the CTSB gene. And this gene is mapped to chromosome 8p22. 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 a member of the peptidase C1 family. Cathepsin B was once suspected as a candidate protease participating in the conversion of beta-amyloid precursor protein into the amyloid plaques found in Alzheimer's disease patients. However, this function is now known to be mediated by BACE1 protease. It is now thought that cathepsin B can degrade beta-amyloid precursor protein into harmless fragments. Thus, it is conceivable cathepsin B may play a pivotal role in the natural defense against Alzheimer's disease. Overexpression of cathepsin B has been associated with esophageal adenocarcinoma and other tumors. At least five transcript variants encoding the same protein have been found for this gene. The standard product used in this kit is recombinant human Cathepsin B with the molecular mass of 37KDa.