

Anti-Cathepsin B CTSB Rabbit Monoclonal Antibody

Catalog # ABO14105

Product Information

Application	WB, IHC, IF, ICC, IP
Primary Accession	P07858
Host	Rabbit
Isotype	Rabbit IgG
Reactivity	Human
Clonality	Monoclonal
Format	Liquid
Description	Anti-Cathepsin B CTSB Rabbit Monoclonal Antibody . Tested in WB, IHC, ICC/IF, IP applications. This antibody reacts with Human.

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
Application Details	WB 1:500-1:2000 IHC 1:50-1:200 ICC/IF 1:50-1:200 IP 1:50
Subcellular Localization	Lysosome. Melanosome. Secreted, extracellular space. Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Source	Eukaryota
Contents	Rabbit IgG in phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol, 0.4-0.5mg/ml BSA.
Clone Names	Clone: AAFO-3
Immunogen	A synthesized peptide derived from human Cathepsin B
Purification	Affinity-chromatography
Storage	Store at -20°C for one year. For short term storage and frequent use, store at 4°C for up to one month. Avoid repeated freeze-thaw cycles.

Protein Information

Name	CTSB
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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

Images

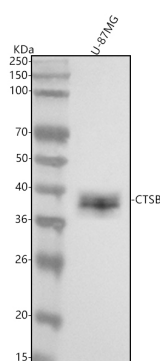


Figure 1. Western blot analysis of Cathepsin B using anti-Cathepsin B antibody (M01456).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human U-87MG whole cell lysates.

After electrophoresis, proteins were transferred to a nitrocellulose membrane at 150 mA for 50-90 minutes. Blocked the membrane with 5% non-fat milk/TBS for 1.5 hour at RT. The membrane was incubated with rabbit anti-Cathepsin B antigen affinity purified monoclonal antibody (Catalog # M01456) at 1:500 overnight at 4°C, then washed with TBS-0.1%Tween 3 times with 5 minutes each and probed with a goat anti-rabbit IgG-HRP secondary antibody at a dilution of 1:1000 for 1.5 hour at RT. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002) with Tanon 5200 system. A specific band was detected for Cathepsin B at approximately 38 kDa. The expected band size for Cathepsin B is at 38 kDa.

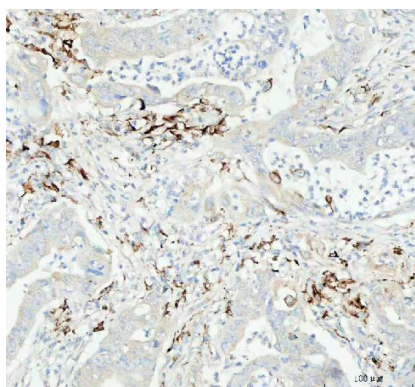


Figure 2. IHC analysis of Cathepsin B using anti-Cathepsin B antibody (M01456).

Cathepsin B was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-Cathepsin B Antibody M01456) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The

tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

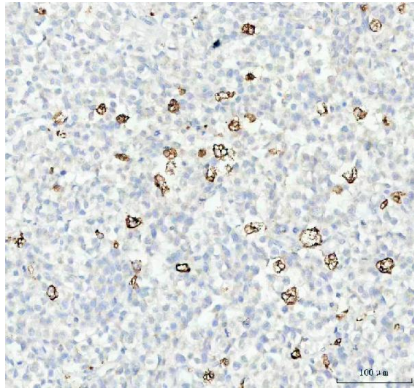


Figure 3. IHC analysis of Cathepsin B using anti-Cathepsin B antibody (M01456).

Cathepsin B was detected in a paraffin-embedded section of human liver cancer tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-Cathepsin B Antibody M01456) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

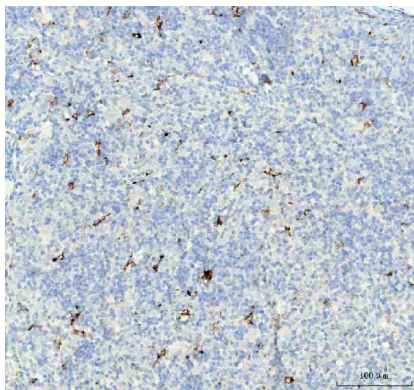


Figure 4. IHC analysis of Cathepsin B using anti-Cathepsin B antibody (M01456).

Cathepsin B was detected in a paraffin-embedded section of human spleen tissue. Heat mediated antigen retrieval was performed in EDTA buffer (pH 8.0, epitope retrieval solution). The tissue section was blocked with 10% goat serum. The tissue section was then incubated with 1:50 rabbit anti-Cathepsin B Antibody M01456) overnight at 4°C. Peroxidase Conjugated Goat Anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB as the chromogen.

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