

Anti-Cathepsin B Picoband Antibody

Catalog # ABO11767

Product Information

Application	WB
Primary Accession	P07858
Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Format	Lyophilized
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.

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	Western blot, 0.1-0.5 µg/ml, Human
Subcellular Localization	Lysosome. Melanosome. Secreted, extracellular space . Identified by mass spectrometry in melanosome fractions from stage I to stage IV.
Source	Eukaryota
Protein Name	Cathepsin B
Contents	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na2HPO4, 0.05mg NaN3.
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.

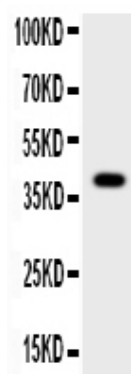
Protein Information

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

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.

Images



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

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