

Datasheet for ABIN3042773
anti-Cathepsin B antibody (AA 80-333)[Go to Product page](#)**1** Image**3** Publications

Overview

Quantity:	100 µg
Target:	Cathepsin B (CTSB)
Binding Specificity:	AA 80-333
Reactivity:	Human
Host:	Rabbit
Clonality:	Polyclonal
Application:	Western Blotting (WB)

Product Details

Purpose:	Rabbit IgG polyclonal antibody for Cathepsin B(CTSB) detection. Tested with WB in Human.
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.
Isotype:	IgG
Cross-Reactivity (Details):	No cross reactivity with other proteins.
Characteristics:	Rabbit IgG polyclonal antibody for Cathepsin B(CTSB) detection. Tested with WB in Human. Gene Name: cathepsin B Protein Name: Cathepsin B
Purification:	Immunogen affinity purified.

Target Details

Target:	Cathepsin B (CTSB)
Alternative Name:	CTSB (CTSB Products)
Background:	<p>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.</p> <p>Synonyms: Amyloid precursor protein secretase antibody APP secretase antibody APPS antibody CATB_HUMAN antibody Cathepsin B antibody Cathepsin B heavy chain antibody Cathepsin B1 antibody CathepsinB antibody CPSB antibody CTSB antibody Cysteine protease antibody OTTHUMP00000116009 antibody OTTHUMP00000229510 antibody OTTHUMP00000229511 antibody OTTHUMP00000229512 antibody OTTHUMP00000229514 antibody OTTHUMP00000229515 antibody OTTHUMP00000229516 antibody Preprocathepsin B antibody</p>
Gene ID:	1508
UniProt:	P07858
Pathways:	Activation of Innate immune Response , Toll-Like Receptors Cascades

Application Details

Application Notes:	<p>WB: Concentration: 0.1-0.5 µg/mL, Tested Species: Human, The detection limit for Cathepsin B is approximately 0.5 ng/lane under reducing conditions.</p> <p>Notes: Tested Species: Species with positive results.</p> <p>Other applications have not been tested. Optimal dilutions should be determined by end users.</p>
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

Application Details

Restrictions: For Research Use only

Handling

Format: Lyophilized

Reconstitution: Add 0.2 mL of distilled water will yield a concentration of 500 µg/mL.

Concentration: 500 µg/mL

Buffer: Each vial contains 5 mg BSA, 0.9 mg NaCl, 0.2 mg Na₂HPO₄, 0.05 mg Sodium azide.

Preservative: Sodium azide

Precaution of Use: This product contains Sodium azide: a POISONOUS AND HAZARDOUS SUBSTANCE which should be handled by trained staff only.

Handling Advice: Avoid repeated freezing and thawing.

Storage: 4 °C/-20 °C

Storage Comment: 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.

Publications

Product cited in: Yao, Zhao, Ou, Liang, Lin, Wang: "MicroRNA-214 Suppresses Osteogenic Differentiation of Human Periodontal Ligament Stem Cells by Targeting ATF4." in: **Stem cells international**, Vol. 2017, pp. 3028647, (2017) ([PubMed](#)).

Wang, Wang, Dai, Chen, Yang, Dai, Ou, Wang, Lin: "Effects of Intermittent Administration of Parathyroid Hormone (1-34) on Bone Differentiation in Stromal Precursor Antigen-1 Positive Human Periodontal Ligament Stem Cells." in: **Stem cells international**, Vol. 2016, pp. 4027542, (2016) ([PubMed](#)).

Li, Chen, Peng, Zhou, Fang: "Pulsed electromagnetic fields protect the balance between adipogenesis and osteogenesis on steroid-induced osteonecrosis of femoral head at the pre-collapse stage in rats." in: **Bioelectromagnetics**, Vol. 35, Issue 3, pp. 170-80, (2014) ([PubMed](#)).

Song, Yu, Zhao, Wei, Liu, Hu, Zhao, Yang, Wu: "The time-dependent manner of sinusoidal electromagnetic fields on rat bone marrow mesenchymal stem cells proliferation,

differentiation, and mineralization." in: **Cell biochemistry and biophysics**, Vol. 69, Issue 1, pp. 47-54, (2014) ([PubMed](#)).

Mu, Lv, Wang, Ma, Ma, Liu, Yu, Mu: "Mechanical stress stimulates the osteo/odontoblastic differentiation of human stem cells from apical papilla via erk 1/2 and JNK MAPK pathways." in: **BioMed research international**, Vol. 2014, pp. 494378, (2014) ([PubMed](#)).



Western Blotting

Image 1. Anti-Cathepsin B Picoband antibody, All lanes: Anti-Cathepsin B at 0.5ug/mlWB: HEPG2 Whole Cell Lysate at 40ugPredicted bind size: 38KDObserved bind size: 38KD