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# anti-Cathepsin B antibody (AA 80-333)

Image

Publications



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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	

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:	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 prote
	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 variant
	encoding the same protein have been found for this gene. The standard product used in this k
	is recombinant human Cathepsin B with the molecular mass of 37KDa.
	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
Gene ID:	1508
UniProt:	P07858
Pathways:	Activation of Innate immune Response, Toll-Like Receptors Cascades
Application Details	
Application Notes:	WB: Concentration: 0.1-0.5 μg/mL, Tested Species: Human, The detection limit for Cathepsin E
	is approximately 0.5 ng/lane under reducing conditions.
	Notes: Tested Species: Species with positive results.
	Other applications have not been tested. Optimal dilutions should be determined by end users
Comment:	Antibody can be supported by chemiluminescence kit ABIN921124 in WB.

#### **Application Details**

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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:

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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).

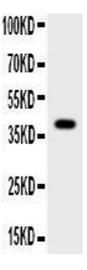
Li, Chen, Peng, Zhou, Fang: "Pulsed electromagnetic fields protect the balance between adipogenesis and osteogenesis on steroid-induced osteonecrosis of femoral head at the precollapse stage in rats." in: **Bioelectromagnetics**, Vol. 35, Issue 3, pp. 170-80, (2014) (PubMed).

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).

### **Images**



## **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: 38KD0bserved bind size: 38KD