

## Anti-Cathepsin D/CTSD Antibody Picoband®

Catalog Number: PB9047

### About CTSD

Cathepsin D is a protein that in humans is encoded by the CTSD gene. This proteinase is a member of the peptidase C1 family, having a specificity similar to but narrower than that of pepsin A. It is mapped to 11p15.5. The cDNA encodes a 412-amino acid protein with 20 and 44 amino acids in a pre- and prosegment, respectively. Cathepsin D is one of the lysosomal proteinases. It is ubiquitously expressed and is involved in proteolytic degradation, cell invasion, and apoptosis. Mutations in this gene are involved in the pathogenesis of several diseases, including breast cancer and possibly Alzheimer disease and it has been considered as a breast cancer tumor marker.

### Overview

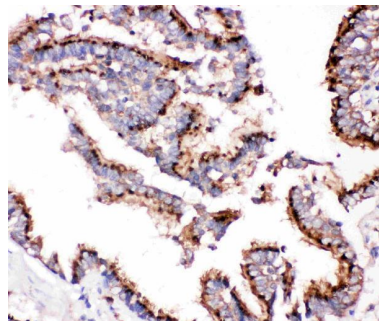
Product Name	Anti-Cathepsin D/CTSD Antibody Picoband®
Reactive Species	Human
Description	Boster Bio <a href="#">Anti-Cathepsin D/CTSD Antibody Picoband®</a> catalog # PB9047. Tested in IHC, WB applications. This antibody reacts with Human. The brand Picoband indicates this is a premium antibody that guarantees superior quality, high affinity, and strong signals with minimal background in Western blot applications. Only our best-performing antibodies are designated as Picoband, ensuring unmatched performance.
Application	IHC, WB
Clonality	Polyclonal
Formulation	Each vial contains antibody formulated with stabilizing components, 0.9 mg NaCl, 0.2 mg Na <sub>2</sub> HPO <sub>4</sub> , and 0.05 mg NaN <sub>3</sub> . *This antibody is supplied in a stabilized formulation. Compatibility with conjugation reactions depends on the chemistry of the conjugation method used. For conjugation methods that are not compatible with the stabilizing components present in this formulation, a carrier-free antibody format is required.
Storage Instructions	Store at -20°C for one year from date of receipt. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for six months. Avoid repeated freeze-thaw cycles.
Host	Rabbit
Uniprot ID	P07339

### Technical Details

Immunogen	E.coli-derived human Cathepsin D recombinant protein (Position: G65-L412). Human Cathepsin D shares 85% amino acid (aa) sequence identity with both mouse and rat Cathepsin D.
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot, and HRP Conjugated anti-Rabbit IgG Super Vision Assay Kit (SV0002-1) for IHC(P).

Cross Reactivity	No cross-reactivity with other proteins
Isotype	Rabbit IgG
Form	Lyophilized
Concentration	Adding 0.2 ml of distilled water will yield a concentration of 500 ug/ml.
Purification	Immunogen affinity purified.
Suggested Dilutions	Immunohistochemistry (Paraffin-embedded Section), 0.5-1ug/ml, Human Western blot, 0.1-0.5ug/ml, Human

## Anti-Cathepsin D/CTSD Antibody Picoband® (PB9047) Images



IHC analysis of Cathepsin D using anti-Cathepsin D antibody (PB9047). Cathepsin D was detected in a paraffin-embedded section of human lung 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 ug/ml rabbit anti-Cathepsin D Antibody (PB9047) overnight at 4°C. Biotinylated goat anti-rabbit IgG was used as secondary antibody and incubated for 30 minutes at 37°C. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.



Western blot analysis of Cathepsin D using anti-Cathepsin D antibody (PB9047). Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. Lane 1: recombinant human Cathepsin D protein 0.5 ng. 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 D antigen affinity purified polyclonal antibody (Catalog # PB9047) at 0.5 ug/mL 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 1:5000 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 D at approximately 40 kDa. The expected band size for Cathepsin D is at 40 kDa.

## 1 Publications Citing This Product

1. PubMed ID: 27310928, Inhibition of autophagosome-lysosome fusion by ginsenoside Ro via the ESR2-NCF1-ROS pathway sensitizes esophageal cancer cells to 5-fluorouracil-induced cell death via the CHEK1-mediated DNA damage checkpoint

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Anti-Cathepsin D/CTSD Antibody

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