

Anti-Apg7/ATG7 Antibody Picoband™

Catalog Number: PB9479

About ATG7

Autophagy-related protein 7 is a protein that in humans is encoded by the ATG7 gene. It is mapped to 3p25.3. This gene was identified based on homology to *Pichia pastoris* GSA7 and *Saccharomyces cerevisiae* APG7. In the yeast, the protein appears to be required for fusion of peroxisomal and vacuolar membranes. The protein also shows homology to the ATP-binding and catalytic sites of the E1 ubiquitin activating enzymes. ATG7 is essential for the Apg12 conjugation system that mediates membrane fusion in autophagy. It is found that when nutrients are limited, ATG7 can regulate p53-dependent cell cycle and cell death pathways.

Overview

Product Name	Anti-Apg7/ATG7 Antibody Picoband™
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-Apg7/ATG7 Antibody Picoband™ catalog # PB9479. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.05mg NaN ₃ .
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	O95352

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence at the C-terminus of human Apg7, different from the related mouse and rat sequences by two amino acids.
Predicted Reactive Species	Chicken
Recommended Detection Systems	Boster recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (EK1002) for Western blot.
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	<p>Dilute the sample so that the expected range of concentrations fall within the detection range of this kit.</p> <p>If the expected range of concentration is unknown, a pilot test should be conducted to decide the optimal dilution ratio for your samples.</p> <p>Some PubMed article(s) citing the expression level of this target are as follows:</p> <p>Boster Bio's internal QC testing used:</p> <p>Western blot, 0.1-0.5ug/ml, Human, Mouse, Rat</p>

Anti-Apg7/ATG7 Antibody Picoband™ (PB9479) Images

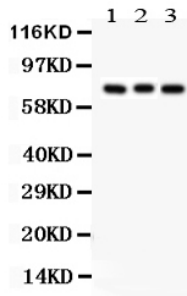


Figure 1. Western blot analysis of APG7 using anti-APG7 antibody (PB9479).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours.

Lane 1: Rat Brain Tissue Lysate at 50ug,

Lane 2: Mouse Brain Tissue Lysate at 50ug,

Lane 3: 293T Whole Cell Lysate at 40ug.

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-APG7 antigen affinity purified polyclonal antibody (Catalog # PB9479) 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 APG7 at approximately 78 kDa. The expected band size for APG7 is at 78 kDa.

3 Publications Citing This Product

1. PubMed ID: 29113167, Yang J, Sheng S, Yang Q, Li L, Qin S, Yu S, Zhang X. Oncol Lett. 2017 Nov;14(5):5333-5339. doi: 10.3892/ol.2017.6857. Epub 2017 Aug 31. Endocan silencing induces programmed cell death in hepatocarcinoma

2. PubMed ID: 29552291, Erbin exerts a protective effect against inflammatory bowel disease by suppressing autophagic cell death

3. PubMed ID: 27383629, Nrf2 signalling and autophagy are involved in diabetes mellitus-induced defects in the development of mouse placenta

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