

Anti-APG5L/ATG5 Antibody

Catalog Number: PA2260

About ATG5

Autophagy protein 5 is a protein that in humans is encoded by the ATG5 gene. It is also known as APG5 or ASP, and this gene is mapped to 6q21. It is found that knockdown of ATG5 in hepatocytes increased triglyceride levels with oleate or a second endogenous stimulus for triglyceride formation. These hepatocytes with ATG5 knockdown also had increased lipid droplet number and size. ATG5 is an E3 ubiquitin ligase which is necessary for autophagy due to its role in autophagosome elongation. It is activated by ATG7 and forms a complex with ATG12 and ATG16L1. This complex is necessary for LC3-1 conjugation to PE to form LC3-II.

Overview

Product Name	Anti-APG5L/ATG5 Antibody
Reactive Species	Human, Mouse, Rat
Description	Boster Bio Anti-APG5L/ATG5 Antibody catalog # PA2260. Tested in WB applications. This antibody reacts with Human, Mouse, Rat.
Application	WB
Clonality	Polyclonal
Formulation	Each vial contains 4 mg Trehalose, 0.9 mg NaCl and 0.2 mg Na ₂ HPO ₄ .
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	Q9H1Y0

Technical Details

Immunogen	A synthetic peptide corresponding to a sequence in the middle region of human APG5L, identical to the related mouse sequence, and different from the related rat sequence by one amino acid.
Predicted Reactive Species	Hamster
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-APG5L/ATG5 Antibody (PA2260) Images

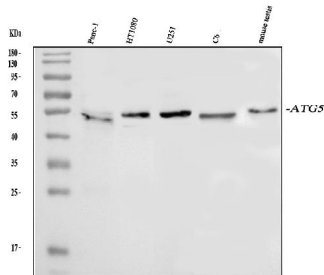


Figure 1. Western blot analysis of ATG5 using anti-ABI2 antibody (PA2260).

Electrophoresis was performed on a 5-20% SDS-PAGE gel at 70V (Stacking gel) / 90V (Resolving gel) for 2-3 hours. The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human PANC-1 whole cell lysates,

Lane 2: human HT1080 whole cell lysates,

Lane 3: human U251 whole cell lysates,

Lane 4: rat C6 whole cell lysates,

Lane 5: mouse testis tissue lysates.

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-

ATG5 antigen affinity purified polyclonal antibody (Catalog #

PA2260) 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 ATG5 at approximately 55 kDa. The

expected band size for ATG5 is at 55 kDa.

7 Publications Citing This Product

1. PubMed ID: -, Shen W, Jia N, Miao J, Chen S, Zhou S, Meng P, Zhou X, Tang L, Zhou L: Penicillium B Protects against Cisplatin-Induced Renal Tubular Cell Apoptosis through Activation of AMPK-Induced Autophagy and Mitochondrial Biogenesis. *Kidney Dis* 2021. doi:10.1159/000514657

2. 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

3. PubMed ID: 26459718, Anti-autophagic and anti-apoptotic effects of memantine in a SH-SY5Y cell model of Alzheimer's disease via mammalian target of rapamycin-dependent and -independent pathways

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