

Rabbit anti-Human ATG7 Polyclonal Antibody | anti-ATG7 antibody

Anti-ATG7 Antibody

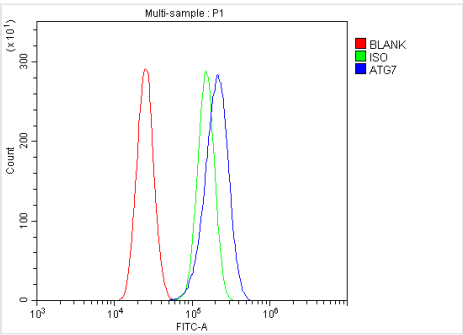
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA125542	Rabbit	Human	ELISA, Flow Cytometry, Functional Assay, Western Blot

PRODUCT SYNONYMS

ATG7; Polyclonal Antibody; Anti-ATG7 Antibody; APG7L; Ubiquitin-like modifier-activating enzyme ATG7; ATG12-activating enzyme E1 ATG7; Autophagy-related protein 7; APG7-like; hAGP7; Ubiquitin-activating enzyme E1-like protein; autophagy related 7; anti-ATG7 antibody

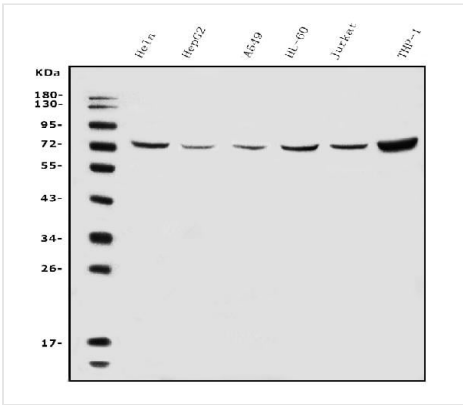
PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human
Clonality	Polyclonal
Isotype	Rabbit IgG
Specificity	Rabbit IgG polyclonal antibody for ATG7 detection.
Purity/Purification	Immunogen affinity purified.
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na ₂ HPO ₄ , 0.01mg NaN ₃ .
Applicable Applications for anti-ATG7 antibody	ELISA (Direct ELISA), FCM/FACS (Flow Cytometry), WB (Western Blot)
Immunogen	E Coli-derived human ATG7 recombinant protein (Position: D7-Q690).
Reconstitution	Add 0.2ml of distilled water will yield a concentration of 500ug/ml.
Recommended Detection Systems	Recommended Detection Systems
Preparation and Storage	Store at -20 degree C for one year. After reconstitution, at 4 degree C for one month. It can also be aliquotted and stored frozen at -20 degree C for a longer time. Avoid repeated freezing and thawing.



FCM/FACS (Flow Cytometry)

Figure 2. Flow Cytometry analysis of U87 cells using anti-ATG7 antibody (AAA125542).Overlay histogram showing U87 cells stained with AAA125542 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATG7 Antibody (AAA125542, 1μg/1x10⁶ cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10μg/1x10⁶ cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1μg/1x10⁶) used under the same conditions. Unlabelled sample (Red line) was also used as a control.



WB (Western Blot)

Figure 1. Western blot analysis of ATG7 using anti-ATG7 antibody (AAA125542).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 50ug of sample under reducing conditions.Lane 1: human HeLa whole cell lysatesLane 2: human HepG2 whole cell lysatesLane 3: human A549 whole cell lysatesLane 4: human HL-60 whole cell lysatesLane 5: human Jurkat whole cell lysatesLane 6: human THP-1 whole cell lysates.After Electrophoresis, proteins were transferred to a Nitrocellulose membrane at 150mA 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-ATG7 antigen affinity purified polyclonal antibody (Catalog # AAA125542) at 0. 5 μg/mL overnight at 4 degree 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 with Tanon 5200 system. A specific band was detected for ATG7 at approximately 78KD. The expected band size for ATG7 is at 78KD.

ADDITIONAL INFORMATION

Related Product Information for anti-ATG7 antibody	Autophagy related 7 is a protein in humans encoded by ATG7 gene. It is mapped to 3p25. 3. This gene encodes an E1-like activating enzyme that is essential for autophagy and cytoplasmic to vacuole transport. The encoded protein is also thought to modulate p53-dependent cell cycle pathways during prolonged metabolic stress. It has been associated with multiple functions, including axon membrane trafficking, axonal homeostasis, mitophagy, adipose differentiation, and hematopoietic stem cell maintenance. Alternative splicing results in multiple transcript variants.
References	1. Komatsu, M., Wang, Q. J., Holstein, G. R., Friedrich, V. L., Jr., Iwata, J., Kominami, E., Chait, B. T., Tanaka, K., Yue, Z. Essential role for autophagy protein Atg7 in the maintenance of axonal homeostasis and the prevention of axonal degeneration. Proc. Nat. Acad. Sci. 104: 14489-14494, 2007. 2. Lee, I. H., Kawai, Y., Fergusson, M. M., Rovira, I. I., Bishop, A. J. R., Motoyama, N., Cao, L., Finkel, T. Atg7 modulates p53 activity to regulate cell cycle and survival during metabolic stress. Science 336: 225-228, 2012. Note: Erratum: Science 337: 910 only, 2012. Erratum: Science 341: 457 only, 2013. 3. Nishida, Y., Arakawa, S., Fujitani, K., Yamaguchi, H., Mizuta, T., Kanaseki, T., Komatsu, M., Otsu, K., Tsujimoto, Y., Shimizu, S. Discovery of Atg5/Atg7-independent alternative macroautophagy. Nature 461: 654-658, 2009. Note: Erratum: Nature 533: 130 only, 2016.

NCBI AND UNIPROT INFORMATION

NCBI GI #	222144227
NCBI GeneID	10533
NCBI Accession #	NP_001129503.2
NCBI GenBank Nucleotide #	NM_001136031.2
UniProt Accession #	O95352; Q7L8L0; Q9BWP2; Q9UFH4; B4E170; E9PB95
Molecular Weight	703
NCBI Official Full Name	ubiquitin-like modifier-activating enzyme ATG7 isoform b

NCBI Official Synonym Full Names	autophagy related 7
NCBI Official Symbol	ATG7
NCBI Official Synonym Symbols	GSA7; APG7L; APG7-LIKE
NCBI Protein Information	ubiquitin-like modifier-activating enzyme ATG7; hAGP7; autophagy-related protein 7; ATG12-activating enzyme E1 ATG7; ATG7 autophagy related 7 homolog; ubiquitin activating enzyme E1-like protein; ubiquitin-activating enzyme E1-like protein
UniProt Protein Name	Ubiquitin-like modifier-activating enzyme ATG7
UniProt Gene Name	ATG7
UniProt Synonym Gene Names	APG7L; APG7-like; hAGP7
UniProt Entry Name	ATG7_HUMAN

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://www.aaabiotech.com/polyclonal/atg7-antibody-direct-elisa-flow-cytometry-western-blot-elisa/125542>