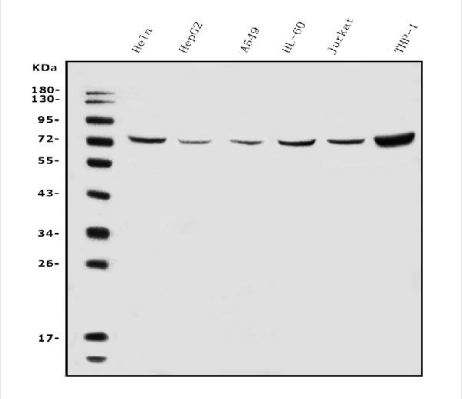
ATG7 Antibody – Rabbit Polyclonal

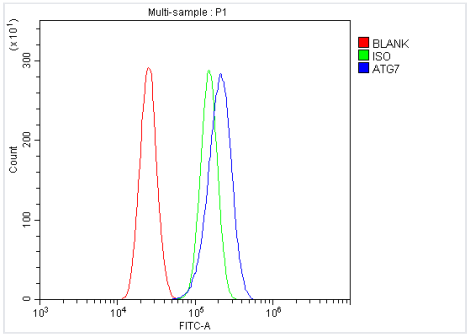
PRODUCT OVERVIEW

Product Name	ATG7, Polyclonal Antibody
Full Product Name	Anti-ATG7 Antibody
Product Gene Name	anti-ATG7 antibody
Product Synonym Names	ATG7; 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
Clonality	Polyclonal
Isotype	Rabbit IgG
Host	Rabbit
Species Reactivity	Human
Form/Format	Lyophilized. Each vial contains 4mg Trehalose, 0.9mg NaCl, 0.2mg Na2HPO4, 0.01mg NaN3.
Purity/Purification	Immunogen affinity purified.
Specificity	Rabbit IgG polyclonal antibody for ATG7 detection.
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.
Molecular Weight	703
Chromosome Location	Chromosome: 3; NC_000003.11 (11314010..11599139). Location: 3p25.3
OMIM	608760
3D Structure	ModBase 3D Structure for O95352
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||Lab recommends Enhanced Chemiluminescent Kit with anti-Rabbit IgG (MBS176460) for Western blot.
ISO Certification	Manufactured in an ISO 13485:2003 and EN ISO 13485:2012 Certified Laboratory.
Applications Tested/Suitable for anti-ATG7 antibody	Western Blot (WB), Flow Cytometry (FC/FACS/FCM), Direct ELISA (EIA)
Application Notes for anti-ATG7 antibody	WB: 0.25-0.5ug/ml|Human| FC/FACS/FCM: 1-3ug/1x106 cells|Human| Direct ELISA: 0.1-0.5ug/ml|Human|
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.

Product References and Citations for anti-ATG7 antibody	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.
Other Notes	Small volumes of anti-ATG7 antibody vial(s) may occasionally become entrapped in the seal of the product vial during shipment and storage. If necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the container`s cap. Certain products may require to ship with dry ice and additional dry ice fee may apply.
Searchable Terms for ATG7 purchase	MBS1753317 is an antibody targeting ATG7. Reactive in Human. Host: Rabbit.



Western Blot (WB) of anti-ATG7 antibody
Figure 1. Western blot analysis of ATG7 using anti-ATG7 antibody (MBS1753317).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 # MBS1753317) at 0. 5 ?g/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 (Catalog # MBS176460) with Tanon 5200 system. A specific band was detected for ATG7 at approximately 78KD. The expected band size for ATG7 is at 78KD.



Flow Cytometry (FC/FACS) of anti-ATG7 antibody
Figure 2. Flow Cytometry analysis of U87 cells using anti-ATG7 antibody (MBS1753317).Overlay histogram showing U87 cells stained with MBS1753317 (Blue line). The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATG7 Antibody (MBS1753317, 1?g/1x106 cells) for 30 min at 20 degree C. DyLight®488 conjugated goat anti-rabbit IgG (5-10?g/1x106 cells) was used as secondary antibody for 30 minutes at 20 degree C. Isotype control antibody (Green line) was rabbit IgG (1?g/1x106) used under the same conditions. Unlabelled sample (Red line) was also used as a control.

ADDITIONAL DETAILS

NCBI/Uniprot data below describe general gene information for ATG7. It may not necessarily be applicable to this product.

NCBI GI #	222144227
NCBI GeneID	10533
NCBI Accession #	NP_001129503.2
UniProt Primary Accession #	O95352
UniProt Secondary Accession #	Q7L8L0; Q9BWP2; Q9UFH4; B4E170; E9PB95
UniProt Related Accession #	O95352
GenBank Nucleotide #	NM_001136031.2
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
UniProt Protein Name	Ubiquitin-like modifier-activating enzyme ATG7
UniProt Synonym Protein Names	ATG12-activating enzyme E1 ATG7; Autophagy-related protein 7; APG7-like; hAGP7; Ubiquitin-activating enzyme E1-like protein
Protein Family	Ubiquitin-like modifier-activating enzyme
UniProt Gene Name	ATG7
UniProt Synonym Gene Names	APG7L; APG7-like; hAGP7
UniProt Entry Name	ATG7_HUMAN
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
Precautions	All of MyBioSource's Products are for scientific laboratory research purposes and are not for diagnostic, therapeutics, prophylactic or in vivo use. Through your purchase, you expressly represent and warrant to MyBioSource that you will properly test and use any Products purchased from MyBioSource in accordance with industry standards. MyBioSource and its authorized distributors reserve the right to refuse to process any order where we reasonably believe that the intended use will fall outside of our acceptable guidelines.
Disclaimer	While every efforts were made to ensure the accuracy of the information provided in this datasheet, MyBioSource will not be liable for any omissions or errors contained herein. MyBioSource reserves the right to make changes to this datasheet at any time without prior notice. It is the responsibility of the customer to report product performance issues to MyBioSource within 30 days of receipt of the product. Please visit our Terms & Conditions page for more information.
Product Note	Select online data sheet information is drawn from bioinformatics databases, occasionally resulting in ambiguous or non-relevant product information. It is the responsibility of the customer to review, verify, and evaluate the information to make sure it matches their requirements before purchasing the kit. Our ELISA Kit assays are dynamic research tools and sometimes they may be updated and improved. If the format of this assay is important to you then please request the current manual or contact our technical support team with a presales inquiry before placing an order. We will confirm the current details of the assay. We cannot guarantee the sample manual posted online is the most current manual, it is intended to serve as an example only. Please refer to the instructions For Use provided with the assay kit for precise details.

For Research Use Only. Not for use in diagnostic or therapeutic procedures.

MyBioSource | Tel: +1.858.633.0165 | Fax: +1.858.633.0166 | mybiosource.com/contact-us
Online datasheet: https://www.mybiosource.com/polyclonal-human-antibody/atg7/1753317