

Basic Information

Product Name	Anti-ATG7 Antibody	
Gene Name	ATG7	
Source	Rabbit	
Isotype	IgG	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, FCM	
Contents	500 ug/ml antibody with PBS , 0.02% NaN3 , 1 mg BSA and 50% glycerol.	
Immunogen	A synthetic peptide corresponding to a sequence of human ATG7(HELTQKKLNEYRLDEAPKDIK).	
concentration	500 ug/ml	
Purification	Immunogen affinity purified.	
Observed MW	78KD	
Dilution Ratios	Western blot(WB): 1:500-2000 Immunohistochemistry(Paraffin-embedded Section): 1:50-400 Flow cytometry (FCM): 1-3 $\mu\text{g}/1 \times 10^6$ cells (Boiling the paraffin sections in 10mM citrate buffer,pH6.0,or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

Background Information

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.

Selected Validation Data

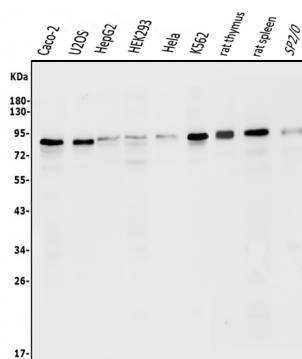


Figure 1. Western blot analysis of anti-ATG7 antibody (A00346). The sample well of each lane was loaded with 50ug of sample under reducing conditions. Lane 1: human CACO-2 whole cell lysates, Lane 2: human U2OS whole cell lysates, Lane 3: human HepG2 whole cell lysates, Lane 4: human HEK293 whole cell lysates, Lane 5: human HELA whole cell lysates, Lane 6: human K562 whole cell lysates, Lane 7: Rat thymus tissue lysates, Lane 8: Rat spleen tissue lysates, Lane 9: Mouse SP2/0 whole cell lysates, Use rabbit anti- ATG7 1:1000, probed with a goat anti-rabbit IgG-HRP secondary antibody. The signal is developed using an Enhanced Chemiluminescent detection (ECL) kit (Catalog # EK1002). A specific band was detected for ATG7 at approximately 78KD. The expected band size for ATG7 is at 78KD.

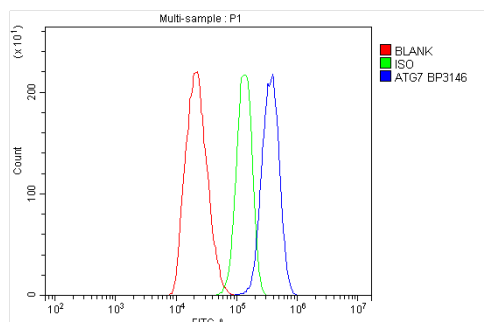


Figure 2. Flow cytometry analysis of C6 cell (1x10⁶) DyLight 488 conjugated goat anti-rabbit IgG (blue) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG DyLight 488. Unlabelled sample (Red line).

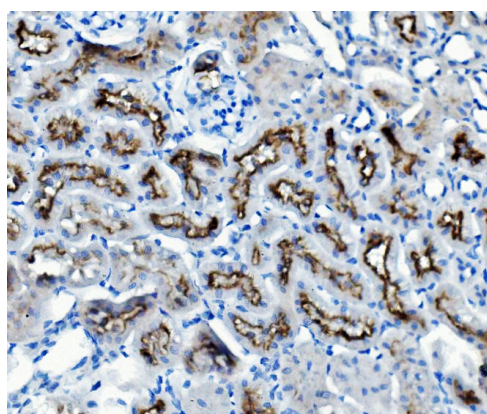


Figure 5. IHC analysis using anti- ATG7 antibody (A00346). detected in paraffin-embedded section of mouse kidney tissue. Biotinylated goat anti-rabbit IgG was used as secondary antibody. The tissue section was developed using Streptavidin-Biotin-Complex (SABC) (Catalog # SA1022) with DAB as the chromogen.