

Basic Information

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|---------------------------|--|------------|
| Product Name | Anti-ATG7 Antibody | |
| Gene Name | ATG7 | |
| Source | Rabbit | |
| Clonality | Polyclonal | |
| Isotype | IgG | |
| Species Reactivity | human | |
| Tested Application | WB, IHC, ICC/IF, FCM, ELISA | |
| Contents | 500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol. | |
| Immunogen | E.coli-derived human ATG7 recombinant protein (Position: D71-K645). | |
| Concentration | 500 ug/ml | |
| Purification | Immunogen affinity purified. | |
| Observed MW | 78 kDa | |
| Dilution Ratios | Western blot (WB): | 1:500-2000 |
| | Immunohistochemistry (IHC): | 1:50-400 |
| | Immunocytochemistry/Immunofluorescence (ICC/IF): | 1:50-400 |
| | Flow Cytometry (Fixed): | 1:50-200 |
| | Enzyme linked immunosorbent assay (ELISA): | 1:100-1000 |
| | (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. | |

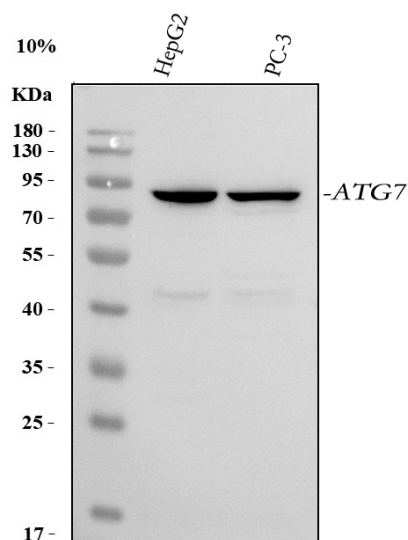
Storage

12 months from date of receipt, -20°C as supplied.

Background Information

Autophagy related 7 is a protein in humans encoded by ATG7 gene. 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



Western blot analysis of anti-ATG7 antibody (A00346-5). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

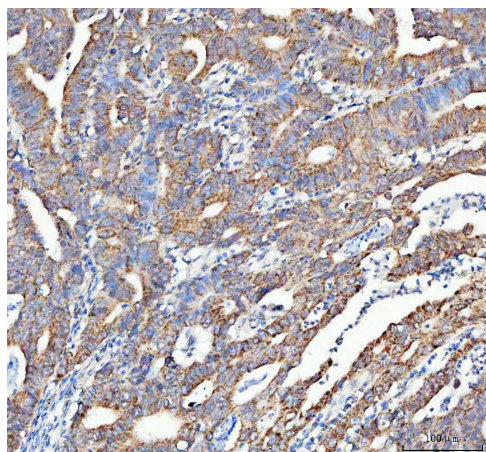
Lane 1: human HepG2 whole cell lysates,

Lane 2: human PC-3 whole cell lysates.

After electrophoresis, proteins were transferred to a membrane.

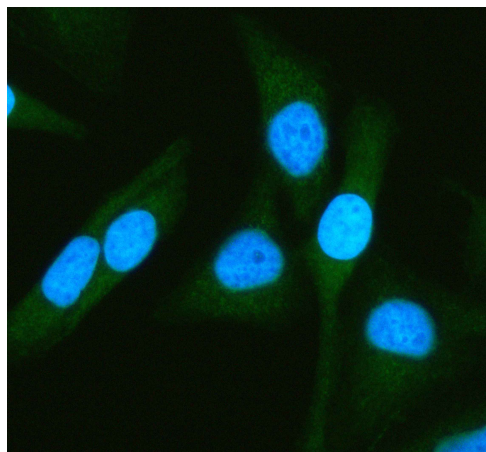
Then the membrane was incubated with rabbit anti-ATG7 antigen affinity purified polyclonal antibody (A00346-5) and probed with a goat anti-rabbit IgG-HRP secondary antibody (Catalog # BA1054).

The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for ATG7 at approximately 78 kDa. The expected band size for ATG7 is at 78 kDa.

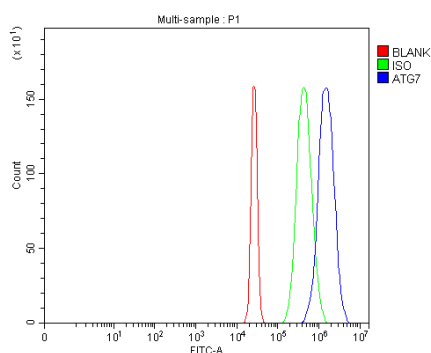


IHC analysis of ATG7 using anti-ATG7 antibody (A00346-5).

ATG7 was detected in a paraffin-embedded section of human colorectal adenocarcinoma tissue. The tissue section was developed using HRP Conjugated Rabbit IgG Super Vision Assay Kit (Catalog # SV0002) with DAB (Catalog # AR1027) as the chromogen.



ICC/IF analysis of ATG7 using anti-ATG7 antibody (A00346-5). ATG7 was detected in an immunocytochemical section of HeLa cells. Fluoro488 Conjugated Goat Anti-Rabbit IgG (Green) (Catalog # BA1127) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of HepG2 cells using anti-ATG7 antibody (A00346-5).

Overlay histogram showing HepG2 cells stained with A00346-5 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with rabbit anti-ATG7 Antibody (A00346-5, 1:100). Fluoro488 conjugated goat anti-rabbit IgG (BA1127, 1:100) was used as secondary antibody. Isotype control antibody (Green line) was rabbit IgG (Catalog # BA1045) (1:100) used under the same conditions. Unlabelled sample (Red line) was also used as a control.