

Basic Information

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|---------------------------|---|--|
| Product Name | Anti-ATG4A Antibody | |
| Gene Name | ATG4A | |
| Source | Rabbit | |
| Clonality | Polyclonal | |
| Isotype | IgG | |
| Species Reactivity | human | |
| Tested Application | WB, IHC, FCM | |
| Contents | 500 ug/ml antibody with PBS, 0.02% NaN3, 1 mg/ml BSA and 50% glycerol. | |
| Immunogen | A synthetic peptide corresponding to a sequence at the N-terminus of human ATG4A, which shares 75% amino acid (aa) sequence identity with both mouse and rat ATG4A. | |
| Concentration | 500 ug/ml | |
| Purification | Immunogen affinity purified. | |
| Observed MW | 45 kDa | |
| Dilution Ratios | Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (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

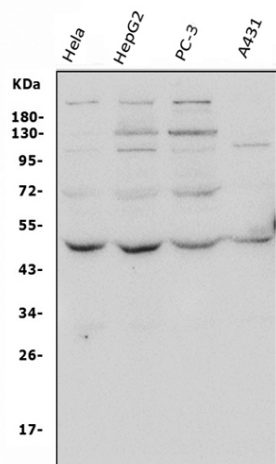
12 months from date of receipt, -20°C as supplied.

Background Information

Cysteine protease ATG4A is an enzyme that in humans is encoded by the ATG4A gene. It is mapped to Xq22.3. Autophagy is the process by which endogenous proteins and damaged organelles are destroyed intracellularly. Autophagy is postulated to be essential for cell homeostasis and cell remodeling during differentiation, metamorphosis, non-apoptotic cell death, and aging. Reduced levels of autophagy have been described in some malignant tumors, and a role for autophagy in controlling the unregulated cell growth linked to cancer has been proposed. This gene encodes a member of the autophagin protein family. The encoded protein is also designated as a member of the C-54 family of

cysteine proteases.

Selected Validation Data



Western blot analysis of ATG4A using anti-ATG4A antibody

(A06539-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: human HeLa whole cell lysates,

Lane 2: human HepG2 whole cell lysates,

Lane 3: human PC-3 whole cell lysates,

Lane 4: human A431 whole cell lysates.

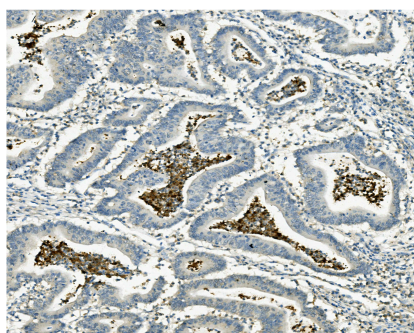
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with rabbit anti-ATG4A antigen

affinity purified polyclonal antibody (A06539-2) at a dilution of 1:1000 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 ATG4A at approximately 45 kDa. The expected band size for ATG4A is at 45 kDa.



IHC analysis of ATG4A using anti-ATG4A antibody (A06539-2).

ATG4A was detected in a paraffin-embedded section of human rectal

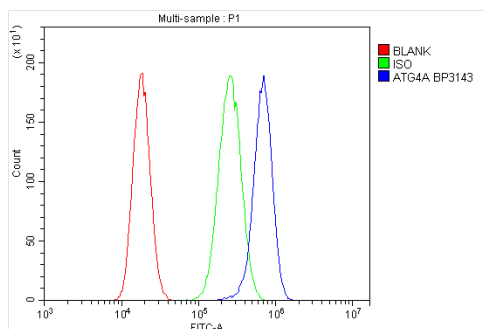
cancer tissue. Biotinylated goat anti-rabbit IgG was used as

secondary antibody. The tissue section was incubated with rabbit

anti-ATG4A Antibody (A06539-2) at a dilution of 1:200 and

developed using Streptavidin-Biotin-Complex (SABC) (Catalog #

SA1022) with DAB (Catalog # AR1027) as the chromogen.



Flow Cytometry analysis of PC-3 cells using anti-ATG4A antibody (A06539-2).

Overlay histogram showing PC-3 cells stained with A06539-2 (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-ATG4A Antibody (A06539-2) at 1:100 dilution for 30 min at 20°C. Fluoro488 conjugated goat anti-rabbit IgG (BA1127) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was rabbit IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.