

ATG5 Antibody

Catalog # ASC10630

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	A9UGY9
Other Accession	EAW48415 , 119568800
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ATG5 antibody can be used for the detection of ATG5 by Western blot at 1 - 2 μ g/mL. Antibody can also be used for immunohistochemistry starting at 2.5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	9474
Target/Specificity	ATG5; Three isoforms of ATG5 are known to exist; this ATG5 antibody will only detect the longest isoform.
Reconstitution & Storage	ATG5 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.
Precautions	ATG5 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

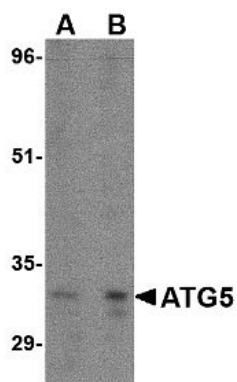
Background

ATG5 Antibody: Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. It is involved in the preservation of cellular nutrients under starvation conditions as well as the normal turnover of cytosolic components. This process is negatively regulated by TOR (Target of rapamycin) through phosphorylation of autophagy protein APG1. ATG5, another member of the autophagy protein family, forms a conjugate with ATG12; this conjugate has a ubiquitin-protein ligase (E3)-like activity for protein lipidation in autophagy. This conjugate also associates with innate immune response proteins such as RIG-I and VISA (also known as IPS-1), inhibiting type I interferon production and permitting viral replication in host cells.

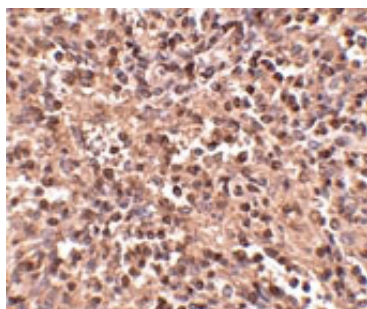
References

- Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. *Oncogene*2004; 23:2891-906.
- Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. *Carcinogenesis*1993; 14:2501-5.
- Kamada Y, Funakoshi T, Shintani T, et al. Tor-mediated induction of autophagy via Apg1 protein kinase complex. *J. Cell. Biol.*2000; 150:1507-13.
- Hanada T, Noda NN, Satomi Y, et al. The Atg12-Atg5 conjugate has a novel E3-like activity for protein lipidation in autophagy. *J. Biol. Chem.*2007; 282:37298-302.

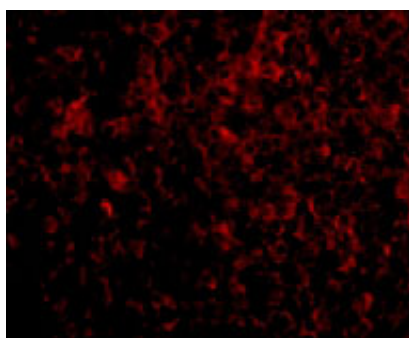
Images



Western blot analysis of ATG5 in rat spleen tissue lysate with ATG5 antibody at (A) 1 and (B) 2 μ g/mL.



Immunohistochemistry of ATG5 in human spleen tissue with ATG5 antibody at 2.5 μ g/mL.



Immunofluorescence of ATG5 in Human Spleen cells with ATG5 antibody at 20 μ g/mL.

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.