

Anti-ATG5

Rabbit Polyclonal Antibody

Catalog # **A105-363R**

Lot # Z2014-2

Cited Applications

E, WB, IHC, IF

Ideal working dilutions for each application should be empirically determined by the investigator.

Specificity

Recognizes the longest isoform of the ATG5 protein

Cross Reactivity

Human, Mouse and Rat

Host/Isotype/Clone#

Rabbit, IgG

Immunogen

ATG5 antibody was raised against a 16 amino acid synthetic peptide from near the amino terminus of human ATG5.

Formulation

PBS + 0.02% sodium azide

Stability

1yr at -20°C from date of shipment

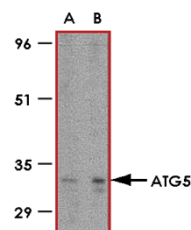
Scientific Background

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 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.

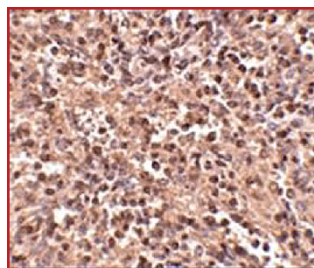
References

- 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.

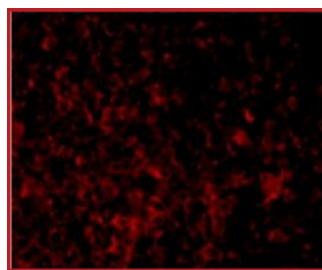
Sample Data



Western blot analysis of ATG5 in rat spleen tissue lysate with Anti-ATG5 at (A) 2 µg/mL and (B) 2 µg/mL.



Immunohistochemistry of ATG5 in human spleen tissue with Anti-ATG5 at 2.5 µg/mL.



Immunofluorescence of ATG5 in Human Spleen cells with Anti-ATG5 at 20 µg/mL.

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Purification

Affinity chromatography

Stability

1yr at -20°C from date of shipment

Storage & Shipping

Store product at -20°C. For optimal storage, aliquot antibody into smaller quantities after centrifugation and store at recommended temperature. For optimal performance, avoid repeated handling and multiple freeze/thaw cycles. Product shipped on ice packs.

To place your order, please contact us by phone 1-(604)-232-4600, fax 1-604-232-4601 or by email: orders@signalchem.com
www.signalchem.com

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