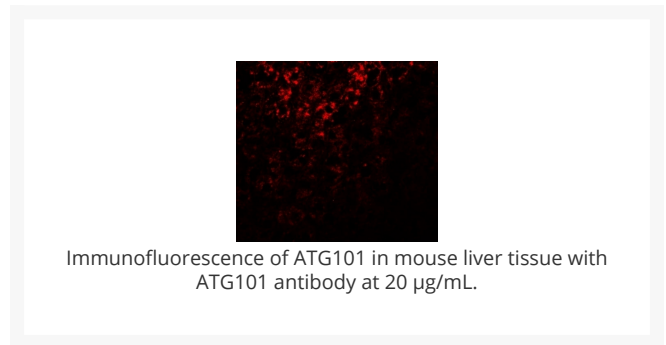
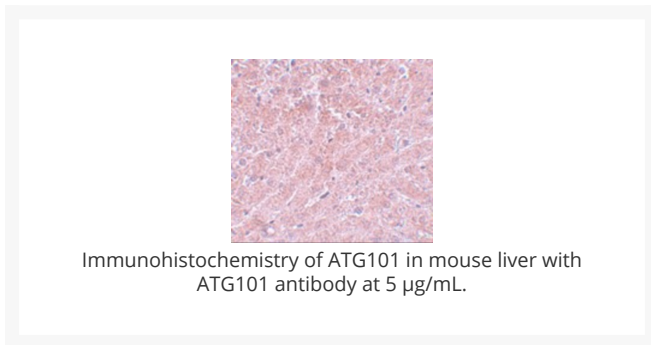
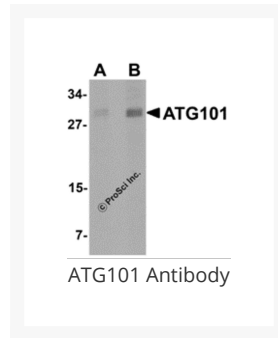




ATG101 Antibody

Cat. No.: 5801



Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Human, Mouse, Rat
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Bovine: (100%)
IMMUNOGEN:	ATG101 antibody was raised against a 16 amino acid synthetic peptide near the center of human ATG101. The immunogen is located within amino acids 80 - 130 of ATG101.
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB

APPLICATIONS:	<p>ATG101 antibody can be used for detection of ATG101 by Western blot at 1 - 2 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.</p> <p>Antibody validated: Western Blot in human samples; Immunohistochemistry in mouse samples and Immunofluorescence in mouse samples. All other applications and species not yet tested.</p>
POSITIVE CONTROL:	1) Cat. No. 1304 - Human Liver Tissue Lysate

Ψ Properties

PURIFICATION:	ATG101 Antibody is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	ATG101 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	ATG101 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.

Ψ Additional Info

OFFICIAL SYMBOL:	C12orf44
ALTERNATE NAMES:	ATG101 Antibody: C12orf44, C12orf44, PP894, Autophagy-related protein 101
ACCESSION NO.:	NP_001092143
PROTEIN GI NO.:	149158714
GENE ID:	60673
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Ψ Background and References

BACKGROUND:	ATG101 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 ATG1. ATG101 is a recently discovered protein that stabilizes ATG13, another autophagy protein that forms a complex with the mammalian homologs of ATG1, ULK1 and ULK2, and with FIP200. This complex is a target of TOR phosphorylation under normal conditions; inhibition of TOR by rapamycin or leucine deprivation leads to dephosphorylation of ATG13, ULK1 and ULK2, which then leads to autophagy. ATG101 also interacts with ULK1 and is essential for autophagy.
REFERENCES:	1) Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. <i>Oncogene</i> 2004; 23:2891-906.
	2) Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. <i>Carcinogenesis</i> 1993; 14:2501-5.
	3) Kamada Y, Funakoshi T, Shintani T, et al. Tor-mediated induction of autophagy via Apg1 protein kinase complex. <i>J. Cell. Biol.</i> 2000; 150:1507-13.
	4) Mercar CA, Kaliappan A, and Dennis PB. A novel, human Atg13 binding protein, Atg101, interacts with ULK1 and is essential for macroautophagy. <i>Autophagy</i> 2009; 5:649-62.

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