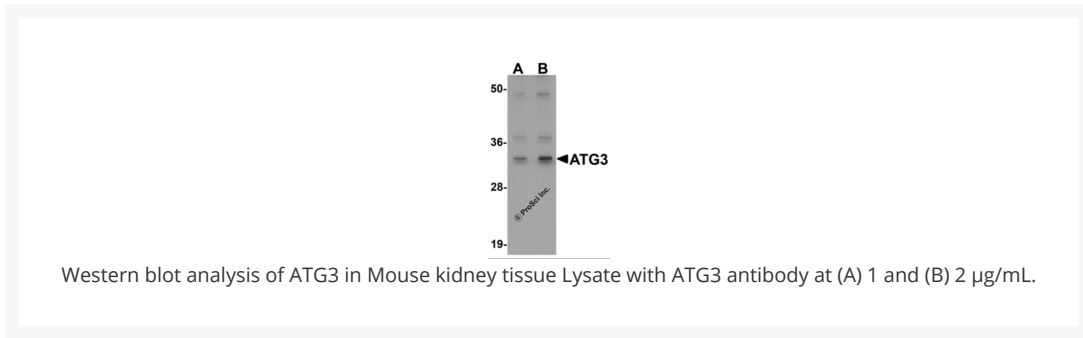




ATG3 Antibody

Cat. No.: 5795



Ψ Specifications

HOST SPECIES:	Rabbit
SPECIES REACTIVITY:	Human, Mouse, Rat
HOMOLOGY:	Predicted species reactivity based on immunogen sequence: Bovine: (100%)
IMMUNOGEN:	ATG3 antibody was raised against an 18 amino acid synthetic peptide near the center of human ATG3. The immunogen is located within amino acids 180 - 230 of ATG3.
TESTED APPLICATIONS:	ELISA, IF, IHC-P, WB

APPLICATIONS:	ATG3 antibody can be used for detection of ATG3 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. Antibody validated: Western Blot in mouse samples; Immunohistochemistry in human samples and Immunofluorescence in human samples. All other applications and species not yet tested.
POSITIVE CONTROL:	1) Cat. No. 1405 - Mouse Kidney Tissue Lysate
	2) Cat. No. 10-401 - Human Kidney Tissue Slide

Ψ Properties

PURIFICATION:	ATG3 Antibody is affinity chromatography purified via peptide column.
CLONALITY:	Polyclonal
ISOTYPE:	IgG
CONJUGATE:	Unconjugated
PHYSICAL STATE:	Liquid
BUFFER:	ATG3 Antibody is supplied in PBS containing 0.02% sodium azide.
CONCENTRATION:	1 mg/mL
STORAGE CONDITIONS:	ATG3 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:	ATG3
ALTERNATE NAMES:	ATG3 Antibody: APG3, APG3L, PC3-96, APG3-LIKE, APG3, Ubiquitin-like-conjugating enzyme ATG3, Autophagy-related protein 3, APG3-like
ACCESSION NO.:	NP_071933
PROTEIN GI NO.:	19526773
GENE ID:	64422
USER NOTE:	Optimal dilutions for each application to be determined by the researcher.

Ψ Background and References

BACKGROUND:	ATG3 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. ATG3 (APG3) is a widely expressed conjugating enzyme for APG8 lipidation, an essential step for the initiation of autophagy. It functions as an E2-like enzyme during the initial stages of autophagosome formation by catalyzing the formation of the Atg8-phosphatidylethanolamine (Atg8-PE) conjugate, which is critical 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) Yamada Y, Suzuki NN, Hanada T, et al. The crystal structure of Atg3, an autophagy-related ubiquitin carrier protein (E2) enzyme that mediates Atg8 lipidation. <i>J. Biol. Chem.</i> 2007; 282:8036-43.

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