10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

ATG10 Antibody
Catalog # ASC10613

Specification

ATG10 Antibody - Product Information

Application	**WB, E**
Primary Accession	Q9H0Y0
Other Accession	EAW95884, 119616290
Reactivity	**Human, Mouse, Rat**
Host	**Rabbit**
Clonality	**Polyclonal**
Isotype	**IgG**
Application Notes	**ATG10 antibody can be used for the detection of ATG10 by Western blot at 0.5 - 2 µg/mL.**

ATG10 Antibody - Additional Information

Gene ID **83734**

Target/Specificity
ATG10;

Reconstitution & Storage
ATG10 antibody can be stored at 4℃ for three months and -20℃, 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
ATG10 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

ATG10 Antibody - Protein Information

Name ATG10

Synonyms APG10L

Function
E2-like enzyme involved in autophagy. Acts as an E2-like enzyme that catalyzes the conjugation of ATG12 to ATG5. ATG12 conjugation to ATG5 is required for autophagy. Likely serves as an ATG5-recognition molecule. Not involved in ATG12 conjugation to ATG3 (By similarity). Plays a role in adenovirus-mediated cell lysis.

Cellular Location
Cytoplasm.

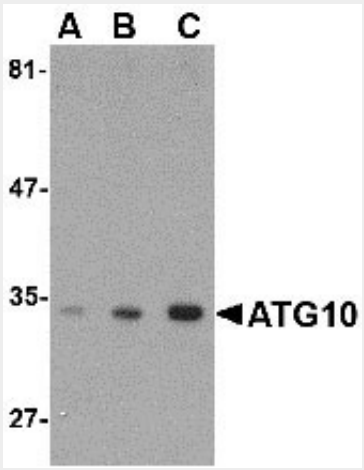
ATG10 Antibody - Protocols

10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Provided below are standard protocols that you may find useful for product applications.

- Western Blot
- Blocking Peptides
- Dot Blot
- Immunohistochemistry
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

ATG10 Antibody - Images



Western blot analysis of ATG10 in SK-N-SH cell lysate with ATG10 antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL.

ATG10 Antibody - Background

ATG10 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. Another member of the autophagy protein family is ATG10, an E2-like enzyme involved in two ubiquitin-like modifications essential for autophagosome formation: ATG12-ATG5 conjugation and the modification of a soluble form of MAP-LC3, a homolog of yeast Apg8, to a membrane-bound form. ATG10 has also been shown to interact with ATG12 in human embryonic kidney cells in the presence of ATG7. Multiple isoforms of ATG10 are known to exist.

ATG10 Antibody - References

Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. Oncogene2004; 23:2891-906.
Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. Carcinogenesis1993; 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.
Nemoto T, Tanida I, Tanida-Miyake E, et al. The mouse APG10 homologue, an E2-like enzyme for APG12p conjugation, facilitates MAP-LC3 modification. J. Biol. Chem.2003; 278:39517-26.