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AP20062PU-N Polyclonal Antibody to APG10L / ATG10 (C-term) - Aff - Purified

Alternate names: Autophagy-related protein 10

Quantity: 0.1 mg

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. 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.

Uniprot ID: Q9H0Y0

NCBI: NP_001124500

GeneID: 83734

Host / Isotype: Rabbit / IgG

Immunogen: ATG10 antibody was raised against a 15 amino acid peptide from near the carboxy terminus of Human ATG10 (Genbank accession No. EAW95884).

Format:
State: Liquid purified IgG fraction
Purification: Immunoaffinity Chromatography
Buffer System: PBS containing 0.02% Sodium Azide as preservative

Applications:
ELISA.
Western blot: ATG10 antibody can be used for the detection of ATG10 at 0.5–1 µg/ml.
Positive Control: SK-N-SH Cell Lysate.
Other applications not tested. Optimal dilutions are dependent on conditions and should be determined by the user.

Specificity: Recognizes APG10L/ATG10 (C-term).

Species Reactivity: **Tested:** Human, Mouse and Rat

Storage: Store the antibody undiluted at 2-8°C.
Antibodies should not be exposed to prolonged high temperatures.
Shelf life: one year from despatch.

General Readings:
1. Gozuacik D, Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. Oncogene. 2004 Apr 12;23(16):2891-906. PubMed PMID: 15077152.
2. Kisen GO, Tessitore L, Costelli P, Gordon PB, Schwarze PE, Baccino FM, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. Carcinogenesis. 1993 Dec;14(12):2501-5. PubMed PMID: 8269618.
3. 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.
4. Nemoto T, Tanida I, Tanida-Miyake E, Minematsu-Ikeguchi N, Yokota M, Ohsumi M, et al. The mouse APG10 homologue, an E2-like enzyme for Apg12p conjugation, facilitates MAP-LC3 modification. J Biol Chem. 2003 Oct 10;278(41):39517-26. Epub 2003 Jul 30. PubMed PMID: 12890687.

Pictures:

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.