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ATG9B Antibody

Catalog # ASC11144

Product Information

Application	WB, IF, ICC, E
Primary Accession	Q674R7
Other Accession	NP_775952, 239582720
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	101019
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	ATG9B antibody can be used for detection of ATG9B by Western blot at 1 - 2 g/mL. Antibody can also be used for immunocytochemistry starting at 10 g/mL. For immunofluorescence start at 20 g/mL.

Additional Information

Gene ID	285973
Other Names	Autophagy-related protein 9B, APG9-like 2, Nitric oxide synthase 3-overlapping antisense gene protein, Protein sONE, ATG9B, APG9L2, NOS3AS
Target/Specificity	ATG9B;
Reconstitution & Storage	ATG9B 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	ATG9B Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Name	ATG9B
Function	Phospholipid scramblase involved in autophagy by mediating autophagosomal membrane expansion. Cycles between the preautophagosomal structure/phagophore assembly site (PAS) and the cytoplasmic vesicle pool and supplies membrane for the growing autophagosome. Lipid scramblase activity plays a key role in preautophagosomal structure/phagophore assembly by distributing the phospholipids that arrive through ATG2 (ATG2A or ATG2B) from the cytoplasmic to the luminal leaflet of the bilayer, thereby driving autophagosomal membrane expansion (By similarity). In addition to

	autophagy, also plays a role in necrotic cell death (By similarity).
Cellular Location	Preautophagosomal structure membrane; Multi-pass membrane protein. Note=Under amino acid starvation or rapamycin treatment, redistributes from a juxtanuclear clustered pool to a dispersed peripheral cytosolic pool (PubMed:18936157). The starvation-induced redistribution depends on ULK1 and ATG13 (PubMed:18936157).
Tissue Location	Highly expressed in placenta (trophoblast cells) and pituitary gland. Not expressed in vascular endothelial

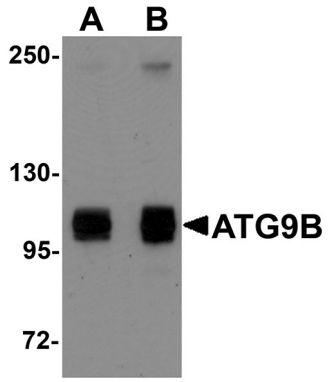
Background

ATG9B 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. ATG9B plays a role in autophagy and it's highly expressed in placenta and pituitary gland.

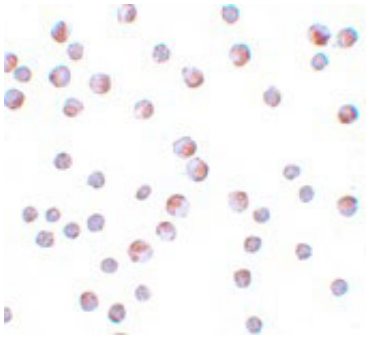
References

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.
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. J. Biol. Chem.2007; 282:8036-43.

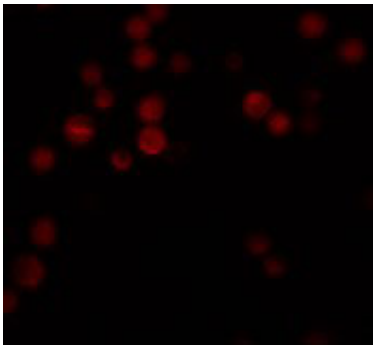
Images



Western blot analysis of ATG9B in HeLa cell lysate with ATG9B antibody at (A) 1 and (B) 2 µg/mL.



Immunocytochemistry of ATG9B in HeLa cells with ATG9B antibody at 10 µg/mL.



Immunofluorescence of ATG9B in Hela cells with ATG9B antibody at 20 µg/mL.