ATG3 monoclonal antibody

Catalog: MB67225 Host: Mouse Reactivity: Human, Mouse

BackGround:

Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents. The molecular machinery of autophagy was largely discovered in yeast and referred to as autophagy-related genes (Atg). Formation of the autophagic vesicles involves two ubiquitin-like conjugation systems, Atg12-Atg5 and Atg8-phosphatidylethanolamine (Atg8-PE), which are essential for autophagy and widely conserved in eukaryotes. There are at least three Atg8 homologs in mammalian cells, GATE-16, GABARAP, and LC3, that are conjugated by lipids. Lipid conjugation of Atg8 and its mammalian homologs requires Atg3 (Apg3p/Aut1p in yeast), an ubiquitously expressed E2-like enzyme. Following C-terminal cleavage by the cysteine protease Atg4, the exposed glycine residue of Atg8 binds to the E1-like enzyme Atg7, is transferred to Atg3, and then conjugated to phophatidylethanolamine. Atg3-deficient mice die within 1 day after birth and are completely defective for the conjugation of Atg8 homlogs and autophagome formation.

Product:

Mouse IgG1 kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.

Molecular Weight:

~ 40 kDa

Swiss-Prot:

Q9NT62

Purification&Purity:

This antibody is purified through a protein G column.

Applications:

WB (1/500 - 1/1000), IHC (1/50 - 1/200)

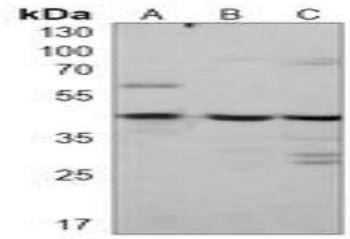
Storage&Stability:

Store at 4℃ short term. Aliquot and store at -20℃ long term. Avoid freeze-thaw cycles.

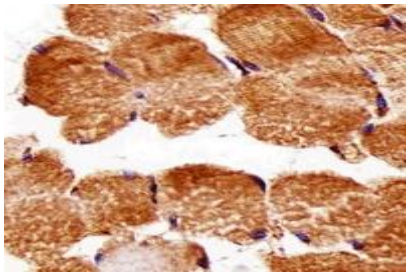
Specificity:

Recognizes endogenous levels of ATG3 protein.

DATA:



Western blot analysis of ATG3 expression in THP1 (A), mouse liver (B), mouse testis (C) whole cell lysates.



Immunohistochemical analysis of ATG3 staining in human skeletal muscle formalin fixed paraffin embedded tissue section. The section was pre-treated using heat mediated antigen retrieval with sodium citrate buffer (pH 6.0). The section was then incubated with the antibody at room temperature and detected using an HRP conjugated compact polymer system. DAB was used as the chromogen. The section was then counterstained with haematoxylin and mounted with DPX.

Note:

For research use only, not for use in diagnostic procedure.

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