

## ATG16L1 monoclonal antibody

Catalog: MB67134

Host: Mouse

Reactivity: Human

### BackGround:

Autophagy is a catabolic process for the autophagosome-lysosomal degradation of bulk cytoplasmic contents. Control of autophagy was largely discovered in yeast and involves proteins encoded by a set of autophagy-related genes (Atg). Formation of autophagic vesicles requires a pair of essential ubiquitin-like conjugation systems, Atg12-Atg5 and Atg8 (LC3)-phosphatidylethanolamine (LC3-PE), which are widely conserved in eukaryotes.

Mammalian Atg16L1, containing an amino-terminal coiled-coil domain and carboxyl-terminal WD-repeats, has multiple isoforms produced by alternative splicing. Atg16L1 provides a functional link between the two crucial ubiquitin-like conjugation systems of autophagy. Atg16L1 binds Atg5 of the Atg12-Atg5 conjugate forming an 800 kDa multimeric complex. The Atg12-Atg5-Atg16L1 complex localizes to pre-autophagosomal membranes where it determines the site of LC3 lipidation and catalyzes the reaction required for the formation of mature autophagosomes. Genome-wide association scanning revealed variations in the Atg16L1 gene associated with Crohn's disease. Mice lacking the coiled-coil domain of Atg16L1 have impaired autophagosome formation and elevated inflammatory cytokines, consistent with its role in inflammatory disease pathogenesis. Hypomorphic Atg16L1 mice also show defects in autophagy and abnormalities in intestinal Paneth cell function similar to that found in Crohn's disease.

### Product:

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

### Molecular Weight:

~ 68 kDa

### Swiss-Prot:

Q676U5

### Purification&Purity:

This antibody is purified through a protein G column.

### Applications:

WB (1/1000 - 1/2000), IHC (1/50 - 1/200)

### Storage&Stability:

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

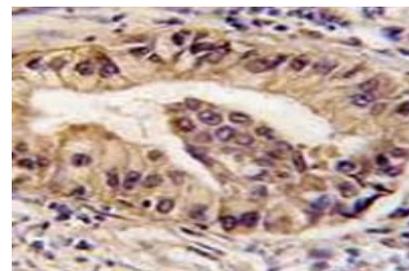
### Specificity:

Recognizes endogenous levels of ATG16L1 protein.

### DATA:



Western blot analysis of ATG16L1 expression in ATG16L1 recombinant protein (A) whole cell lysates.



Immunohistochemical analysis of ATG16L1 staining in human lung carcinoma 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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## PRODUCT DATA SHEET

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