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ATG3 Antibody
Purified Mouse Monoclonal Antibody (Mab)
Catalog # AM8441b

Specification

ATG3 Antibody - Product Information

Application	**WB, IHC-P,E**
Primary Accession	O9NT62
Reactivity	**Human, Mouse**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**IgG1,k**
Calculated MW	**35864**

ATG3 Antibody - Additional Information

Gene ID 64422

Other Names
Ubiquitin-like-conjugating enzyme ATG3, 632-, Autophagy-related protein 3, APG3-like, hApg3, Protein PC3-96, ATG3, APG3, APG3L

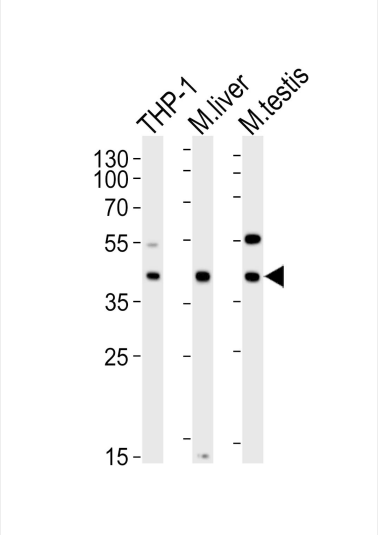
Target/Specificity
This ATG3 antibody is generated from a mouse immunized with recombinant protein of human ATG3.

Dilution
WB~~1:2000
IHC-P~~1:25

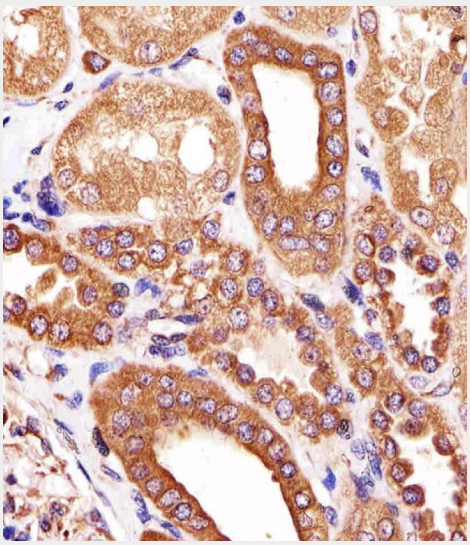
Format
Purified monoclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein G column, followed by dialysis against PBS.

Storage
Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
ATG3 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.



Western blot analysis of lysates from THP-1 cell line, mouse liver, mouse testis tissue (from left to right), using ATG3 Antibody(Cat. #AM8441b). AM8441b was diluted at 1:1000 at each lane. A goat anti-mouse IgG H&L(HRP) at 1:10000 dilution was used as the secondary antibody. Lysates at 20µg per lane.



Immunohistochemical analysis of paraffin-embedded H. kidney section using ATG3 Antibody(Cat#AM8441b). AM8441b

ATG3 Antibody - Protein Information

Name ATG3

Synonyms APG3, APG3L

Function
E2 conjugating enzyme required for the cytoplasm to vacuole transport (Cvt), autophagy, and mitochondrial homeostasis. Responsible for the E2-like covalent binding of phosphatidylethanolamine to the C-terminal Gly of ATG8-like proteins (GABARAP, GABARAPL1, GABARAPL2 or MAP1LC3A). The ATG12-ATG5 conjugate plays a role of an E3 and promotes the transfer of ATG8-like proteins from ATG3 to phosphatidylethanolamine (PE). This step is required for the membrane association of ATG8-like proteins. The formation of the ATG8- phosphatidylethanolamine conjugates is essential for autophagy and for the cytoplasm to vacuole transport (Cvt). Preferred substrate is MAP1LC3A. Also acts as an autocatalytic E2-like enzyme, catalyzing the conjugation of ATG12 to itself, ATG12 conjugation to ATG3 playing a role in mitochondrial homeostasis but not in autophagy. ATG7 (E1-like enzyme) facilitates this reaction by forming an E1-E2 complex with ATG3. Promotes primary ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway.

Cellular Location
Cytoplasm.

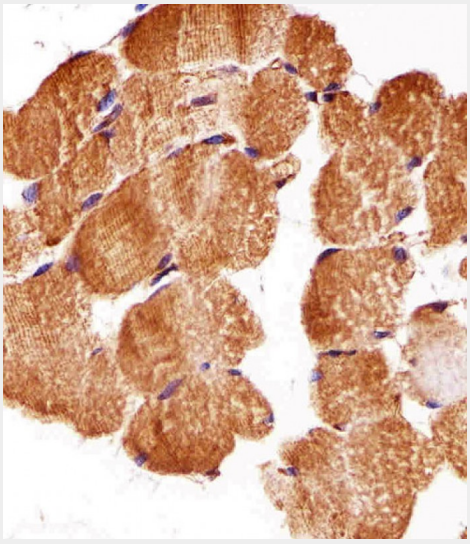
Tissue Location
Widely expressed, with a highest expression in heart, skeletal muscle, kidney, liver and placenta

ATG3 Antibody - Protocols

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

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

was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.



Immunohistochemical analysis of paraffin-embedded H. skeletal muscle section using ATG3 Antibody(Cat#AM8441b). AM8441b was diluted at 1:25 dilution. A undiluted biotinylated goat polyvalent antibody was used as the secondary, followed by DAB staining.

ATG3 Antibody - Background

E2 conjugating enzyme required for the cytoplasm to vacuole transport (Cvt), autophagy, and mitochondrial homeostasis. Responsible for the E2-like covalent binding of phosphatidylethanolamine to the C-terminal Gly of ATG8-like proteins (GABARAP, GABARAPL1, GABARAPL2 or MAP1LC3A). The ATG12- ATG5 conjugate plays a role of an E3 and promotes the transfer of ATG8-like proteins from ATG3 to phosphatidylethanolamine (PE). This step is required for the membrane association of ATG8-like proteins. The formation of the ATG8-phosphatidylethanolamine conjugates is essential for autophagy and for the cytoplasm to vacuole transport (Cvt). Preferred substrate is MAP1LC3A. Also acts as an autocatalytic E2-like enzyme, catalyzing the conjugation of ATG12 to itself, ATG12 conjugation to ATG3 playing a role in mitochondrial homeostasis but not in autophagy. ATG7 (E1-like enzyme) facilitates this reaction by forming an E1-E2 complex with ATG3. Promotes primary

- Cell Culture

ciliogenesis by removing OFD1 from centriolar satellites via the autophagic pathway.

ATG3 Antibody - References

Tanida I.,et al.J. Biol. Chem. 277:13739-13744(2002).
Wu B.X.,et al.Submitted (NOV-1999) to the EMBL/GenBank/DDBJ databases.
Bechtel S.,et al.BMC Genomics 8:399-399(2007).
Ota T.,et al.Nat. Genet. 36:40-45(2004).
Tanida I.,et al.Biochem. Biophys. Res. Commun. 296:1164-1170(2002).