10320 Camino Santa Fe, Suite G
San Diego, CA 92121
Tel: 858.875.1900 Fax: 858.875.1999

Mouse Monoclonal Antibody to ATG2A

Purified Mouse Monoclonal Antibody
Catalog # AO2496a

Specification

Mouse Monoclonal Antibody to ATG2A - Product Information

Application	**E, WB, FC, ICC**
Primary Accession	Q2TAZ0
Reactivity	**Human**
Host	**Mouse**
Clonality	**Monoclonal**
Isotype	**Mouse IgG1**
Calculated MW	**212.8kDa KDa**

Description
ATG2A (Autophagy Related 2A) is a Protein Coding gene. An important paralog of this gene is ATG2B.;

Immunogen
Purified recombinant fragment of human ATG2A (AA: 325-429) expressed in E. Coli.

Formulation
Purified antibody in PBS with 0.05% sodium azide

Application Note
ELISA: 1/10000; WB: 1/500 - 1/2000; ICC: 1/50- 1/200; FCM: 1/200 - 1/400

Mouse Monoclonal Antibody to ATG2A - Additional Information

Gene ID 23130

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions
Mouse Monoclonal Antibody to ATG2A is for research use only and not for use in diagnostic or therapeutic procedures.

Mouse Monoclonal Antibody to ATG2A - Protein Information

Name ATG2A {ECO:0000303|PubMed:21887408, ECO:0000312|HGNC:HGNC:29028}

Function
Lipid transfer protein involved in autophagosome assembly (PubMed:28561066, PubMed:30952800, PubMed:31271352). Tethers the

edge of the isolation membrane (IM) to the endoplasmic reticulum (ER) and mediates direct lipid transfer from ER to IM for IM expansion (PubMed:30952800, PubMed:31271352). Binds to the ER exit site (ERES), which is the membrane source for autophagosome formation, and extracts phospholipids from the membrane source and transfers them to ATG9 (ATG9A or ATG9B) to the IM for membrane expansion (PubMed:30952800, PubMed:31271352). Lipid transfer activity is enhanced by WIPI1 and WDR45/WIPI4, which promote ATG2A-association with phosphatidylinositol 3-monophosphate (PI3P)-containing membranes (PubMed:31271352). Also regulates lipid droplets morphology and distribution within the cell (PubMed:22219374, PubMed:28561066).

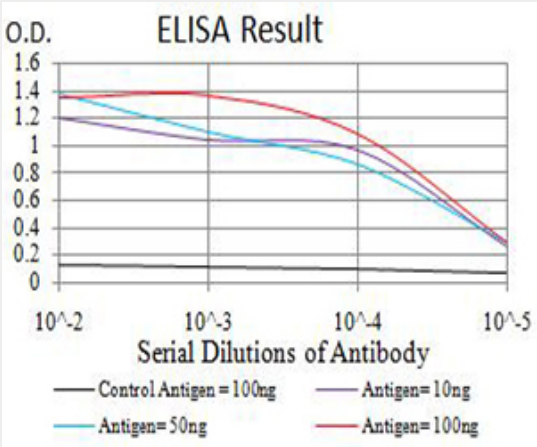
Cellular Location
Preautophagosomal structure membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:Q96BY7}. Lipid droplet {ECO:0000250|UniProtKB:Q96BY7}. Endoplasmic reticulum membrane; Peripheral membrane protein {ECO:0000250|UniProtKB:P53855}. Note=Localizes to endoplasmic reticulum-autophagosome contact sites.

Mouse Monoclonal Antibody to ATG2A - 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
- Cell Culture

Mouse Monoclonal Antibody to ATG2A - Images



Black line: Control Antigen (100 ng);Purple line: Antigen (10ng); Blue line: Antigen (50 ng); Red line:Antigen (100 ng)

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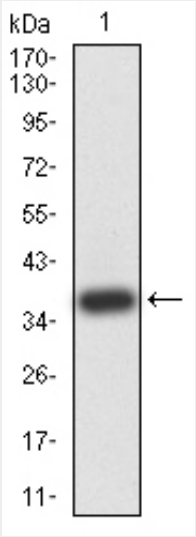
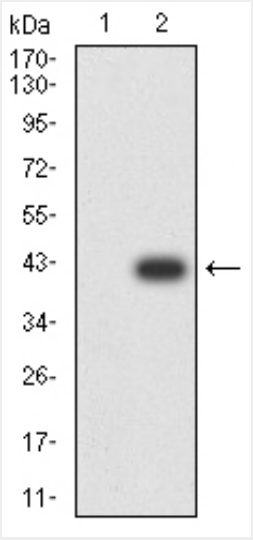
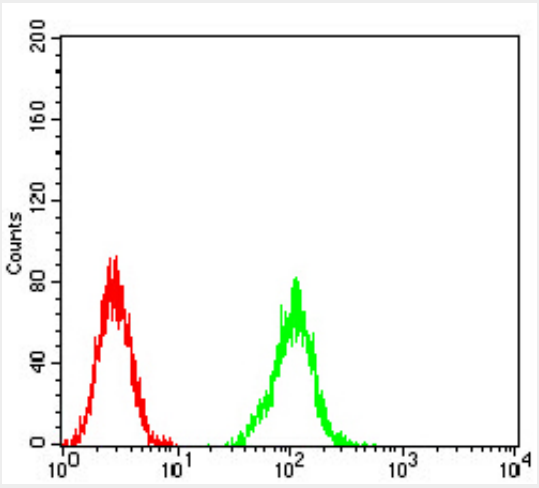


Western blot analysis using ATG2A mAb against human ATG2A (AA: 325-429) recombinant protein. (Expected MW is 37.2 kDa)

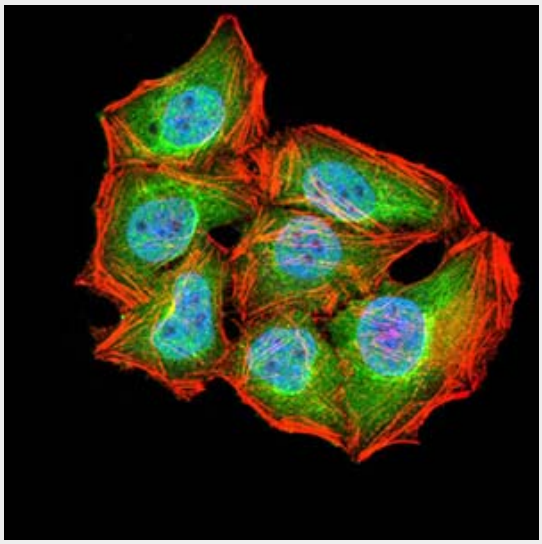


Western blot analysis using ATG2A mAb against HEK293 (1) and ATG2A (AA: 325-429)-hIgGFc transfected HEK293 (2) cell lysate.



Flow cytometric analysis of K562 cells using ATG2A mouse mAb (green) and negative control

(red).



Immunofluorescence analysis of Hela cells using ATG2A mouse mAb (green). Blue: DRAQ5 fluorescent DNA dye. Red: Actin filaments have been labeled with Alexa Fluor- 555 phalloidin. Secondary antibody from Fisher

Mouse Monoclonal Antibody to ATG2A - References

1.Mol Biol Cell. 2012 Mar;23(5):896-909. ; 2.Acta Biochim Pol. 2011;58(3):365-74.;