

**DATASHEET**

**ATG4A Mouse Monoclonal Antibody(C3959)**

CAT. NO. AMA03571

**KEY FEATURES**

Target	ATG4A	Source / Host	Mouse
Reactivity	Human	Clonality	Monoclonal
Applications	WB, IHC, IF/ICC, FC	Conjugation	Unconjugated
Form / Buffer	Mouse IgG2b kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.	Storage	at-20°C

**BACKGROUND**

Cysteine protease that plays a key role in autophagy by mediating both proteolytic activation and delipidation of ATG8 family proteins. The protease activity is required for proteolytic activation of ATG8 family proteins: cleaves the C-terminal amino acid of ATG8 proteins to reveal a C-terminal glycine. Exposure of the glycine at the C-terminus is essential for ATG8 proteins conjugation to phosphatidylethanolamine (PE) and insertion to membranes, which is necessary for autophagy. Preferred substrate is GABARAPL2 followed by MAP1LC3A and GABARAP. Protease activity is also required to counteract formation of high-molecular weight conjugates of ATG8 proteins (ATG8ylation); acts as a deubiquitinating-like enzyme that removes ATG8 conjugated to other proteins, such as ATG3.

**APPLICATION**

To ensure optimal assay performance, AREX recommends conducting reagent titration tailored to each testing system for optimal detection results.

WB	1:500 - 1:1000
IHC	1:50 - 1:200
IF/ICC	1:10 - 1:50
FC	1:10 - 1:50

\*Results are sample-specific. Please refer to your local assay conditions and test parameters for reference.

**PRODUCT OVERVIEW**

Description	Mouse monoclonal antibody to ATG4A
Specificity	Recognizes endogenous levels of ATG4A protein.
Antibody Type	Primary antibody
Immunogen	Recombinant fusion protein of human ATG4A. The exact sequence is proprietary.
Purification	This antibody is purified through a protein G column.
Molecular Weight	Predicted: 45 kD; Observed: 45 kD
Form/Buffer	Mouse IgG2b kappa. Liquid in PBS, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Alternative Names	APG4A; AUTL2; Cysteine protease ATG4A; AUT-like 2 cysteine endopeptidase; Autophagin-2; Autophagy-related cysteine endopeptidase 2; Autophagy-related protein 4 homolog A; hAPG4A
Gene Symbol	ATG4A
Entrez Gene	115201(Human)
SwissProt	Q8WYN0(Human)

\*AREX continuously optimizes our products. Webpage content may not reflect the latest updates. For inquiries, please contact [info@arexbio.com](mailto:info@arexbio.com) or your local distributor.

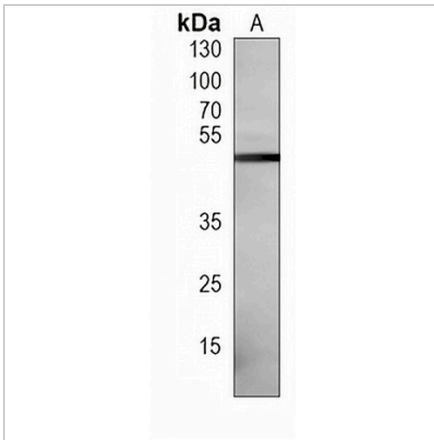
\*Clone Number, Reactivity, Source/Host and Clonality can be found in the product name and Key Features section above.

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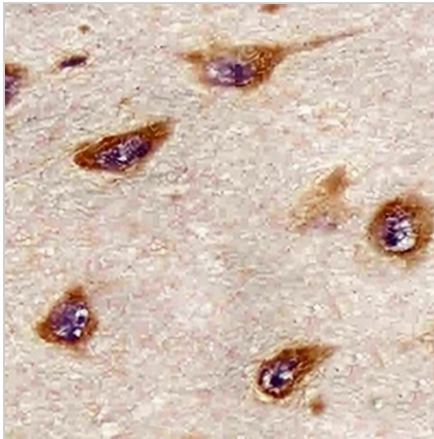
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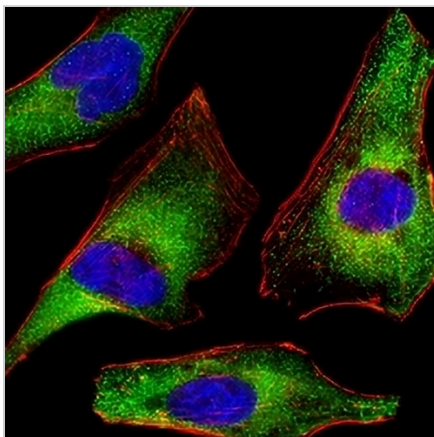
**DATA**



Western blot analysis of ATG4A expression in K562 (A) whole cell lysates. (Predicted band size: 45 kD; Observed band size: 45 kD)



Immunohistochemical analysis of ATG4A staining in human brain 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.



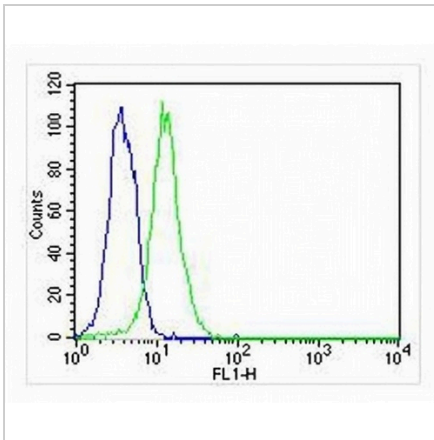
Immunofluorescent analysis of ATG4A staining in HeLa cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a humidified chamber. Cells were washed with PBST and incubated with a AREX® Fluor 488 -conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AREX® Fluor 555 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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**DATA (CONTINUED)**



Flow cytometric analysis of HeLa cells using Anti-ATG4A Antibody. The cells were fixed with 2% paraformaldehyde (10 min) and then permeabilized with 90% methanol for 10 min. The cells were incubated in 2% bovine serum albumin to block non-specific protein-protein interactions followed by the antibody at 37 °C for 60 min. The secondary antibody Goat Anti-Mouse IgG (H&L) - AREX® Fluor 488 was incubated at 37 °C for 40 min. Isotype control antibody (blue line) was used under the same condition.

**STORAGE**

Store at 4°C short term. For long term storage, store at -20°C, avoiding freeze/thaw cycles.

**NOTE**

For Research Use Only. Not for diagnostic, therapeutics, prophylactic or in vivo use.