

KD-Validated Anti-ATG9A Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1178**Specification****KD-Validated Anti-ATG9A Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	Q7Z3C6
Reactivity	Rat, Human, Mouse
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 94 kDa , observed, 94 kDa KDa
Gene Name	ATG9A
Aliases	ATG9A; Autophagy Related 9A; APG9L1; Autophagy-Related Protein 9A; APG9-Like 1; FLJ22169; MATG9; ATG9 Autophagy Related 9 Homolog A (S. Cerevisiae); APG9 Autophagy 9-Like 1 (S. Cerevisiae); ATG9 Autophagy Related 9 Homolog A; Autophagy 9-Like 1 Protein; APG9 Autophagy 9-Like 1; MGD3208
Immunogen	A synthesized peptide derived from human ATG9A

KD-Validated Anti-ATG9A Rabbit Monoclonal Antibody - Additional Information

Gene ID	79065
Other Names	
Autophagy-related protein 9A, APG9-like 1, mATG9, ATG9A {ECO:0000303 PubMed:20124090, ECO:0000312 HGNC:HGNC:22408}	

KD-Validated Anti-ATG9A Rabbit Monoclonal Antibody - Protein Information

Name ATG9A {ECO:0000303|PubMed:20124090, ECO:0000312|HGNC:HGNC:22408}

Function

Phospholipid scramblase involved in autophagy by mediating autophagosomal membrane expansion (PubMed: [22456507](http://www.uniprot.org/citations/22456507) target="_blank">22456507, PubMed: [27510922](http://www.uniprot.org/citations/27510922) target="_blank">27510922, PubMed: [29437695](http://www.uniprot.org/citations/29437695) target="_blank">29437695, PubMed: [32513819](http://www.uniprot.org/citations/32513819) target="_blank">32513819, PubMed: [32610138](http://www.uniprot.org/citations/32610138) target="_blank">32610138, PubMed: [33106659](http://www.uniprot.org/citations/33106659) target="_blank">33106659, PubMed: [33468622](http://www.uniprot.org/citations/33468622) target="_blank">33468622, PubMed: [33850023](http://www.uniprot.org/citations/33850023) target="_blank">33850023). Cycles between the preautophagosomal structure/phagophore assembly site (PAS) and the cytoplasmic vesicle pool and supplies membrane for the growing autophagosome (PubMed: [16940348](http://www.uniprot.org/citations/16940348) target="_blank">16940348)

target="_blank">16940348, PubMed:22456507, PubMed:33106659). Lipid scramblase activity plays a key role in preautophagosomal structure/phagophore assembly by distributing the phospholipids that arrive through ATG2 (ATG2A or ATG2B) from the cytoplasmic to the luminal leaflet of the bilayer, thereby driving autophagosomal membrane expansion (PubMed:33106659). Also required to supply phosphatidylinositol 4- phosphate to the autophagosome initiation site by recruiting the phosphatidylinositol 4-kinase beta (PI4KB) in a process dependent on ARFIP2, but not ARFIP1 (PubMed:30917996). In addition to autophagy, also plays a role in necrotic cell death (By similarity).

Cellular Location

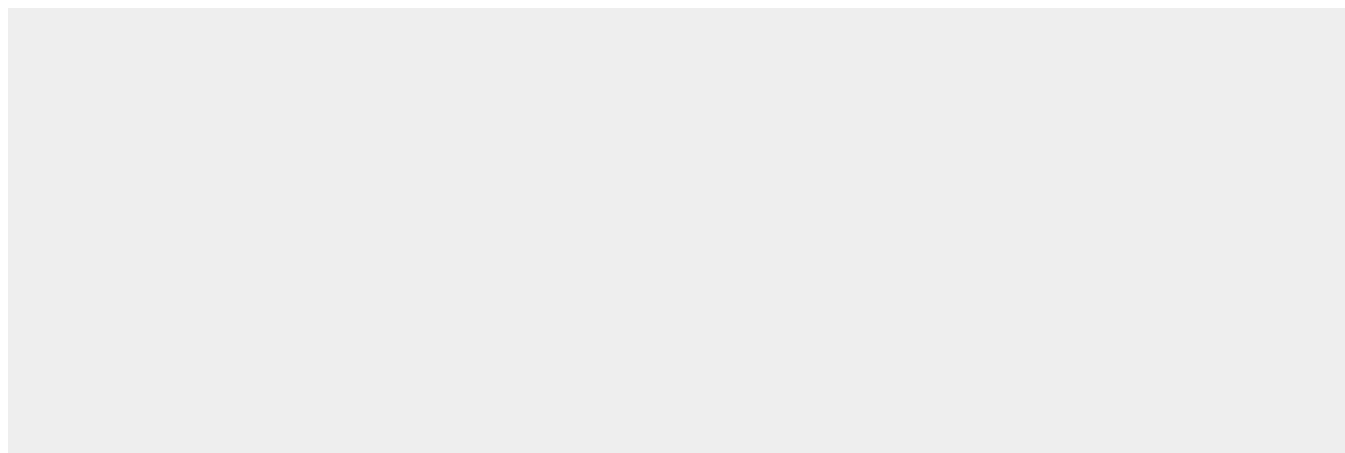
Preautophagosomal structure membrane; Multi-pass membrane protein. Cytoplasmic vesicle, autophagosome membrane; Multi- pass membrane protein. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Recycling endosome membrane; Multi-pass membrane protein. Endoplasmic reticulum membrane; Multi-pass membrane protein. Mitochondrion membrane; Multi-pass membrane protein. Note=Mainly localizes to the trans-Golgi network (TGN) and the endosomal system; cycles between them though vesicle trafficking (PubMed:27316455, PubMed:27663665). Export from the TGN to promote formation of autophagosomes is mediated by the AP-4 complex (PubMed:29180427, PubMed:30262884). Under amino acid starvation or rapamycin treatment, redistributes to preautophagosomal structure/phagophore assembly site (PAS) (PubMed:16940348). The starvation-induced redistribution depends on ULK1, ATG13, as well as SH3GLB1 (PubMed:16940348). Upon autophagy induction, a small portion transiently localizes to the autophagic membranes (PubMed:22456507) Recruited to damaged mitochondria during mitophagy in a RIMOC1- dependent manner (PubMed:34432599).

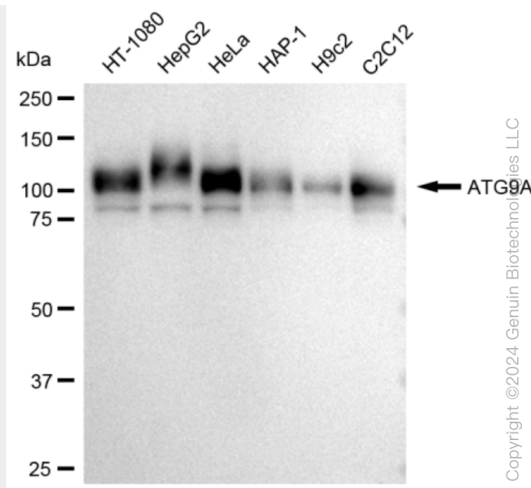
KD-Validated Anti-ATG9A Rabbit Monoclonal Antibody - Protocols

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

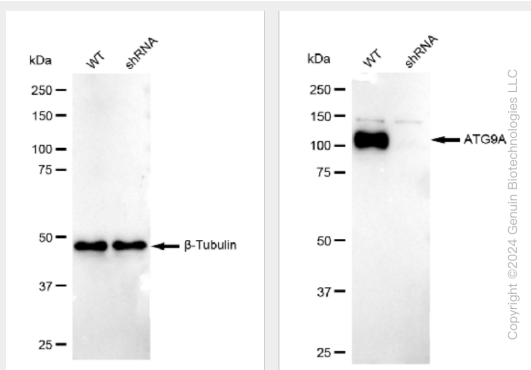
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-ATG9A Rabbit Monoclonal Antibody - Images

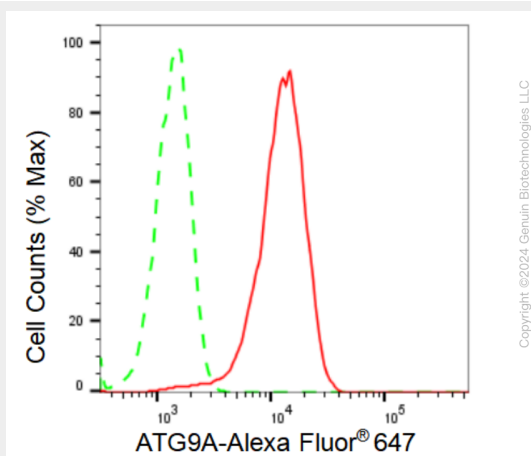




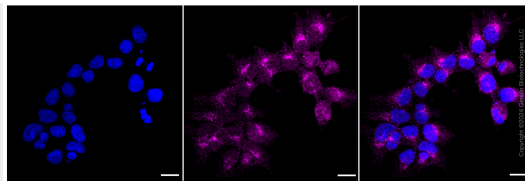
Western blotting analysis using anti-ATG9A antibody (Cat#AGI1178). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ATG9A antibody (Cat#AGI1178, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Western blotting analysis using anti-ATG9A antibody (Cat#AGI1178). ATG9A expression in wild type (WT) and ATG9A shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-ATG9A antibody (Cat#AGI1178, 1:5,000) and HRP-conjugated goat anti-rabbit secondary antibody respectively.



Flow cytometric analysis of ATG9A expression in HeLa cells using ATG9A antibody (Cat#AGI1178, 1:2,000). Green, isotype control; red, ATG9A.



Immunocytochemical staining of HeLa cells with ATG9A antibody (Cat#AGI1178, 1:1,000). Nuclei were stained blue with DAPI; ATG9A was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Medium. Scale bar: 20 μ m.