

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 (<i>S. Cerevisiae</i>); APG9 Autophagy 9-Like 1 (<i>S. Cerevisiae</i>); ATG9 Autophagy Related 9 Homolog A; Autophagy 9-Like 1 Protein; APG9 Autophagy 9-Like 1; MGD3208 A synthesized peptide derived from human ATG9A |
| 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, PubMed:27510922, PubMed:29437695, PubMed:32513819, PubMed:32610138, PubMed:33106659, PubMed:33468622, PubMed:33850023). Cycles between the preautophagosomal structure/phagophore assembly site (PAS) and the cytoplasmic vesicle pool and supplies membrane for the growing autophagosome (PubMed:<a href="http://www.uniprot.org/citations/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

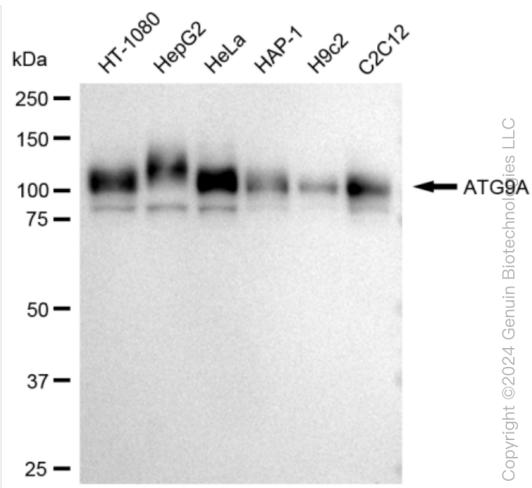
Preatophagosomal structure membrane; Multi-pass membrane protein. Cytoplasmic vesicle, autophagosome membrane; Multi-pass membrane protein. Golgi apparatus, trans-Golgi network membrane; Multi-pass membrane protein. Late endosome membrane; Multi-pass membrane protein. Recycling endosome membrane; Multi-pass 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 through 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.

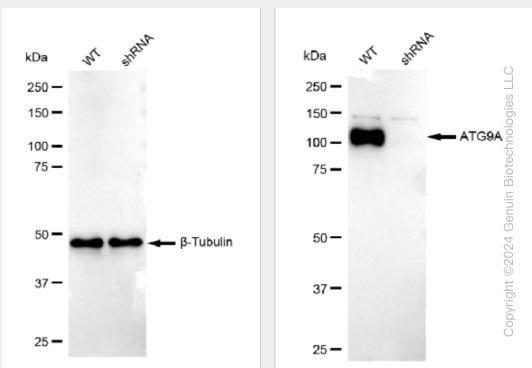
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-ATG9A Rabbit Monoclonal Antibody - Images



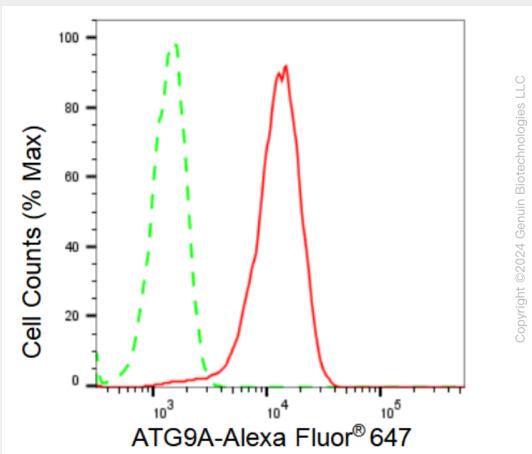
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Western blotting analysis using anti-ATG9A antibody (Cat#AGI1178). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-ATG9A antibody (Cat#AGI1178, 1:5,000) and HRP-conjugated goat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



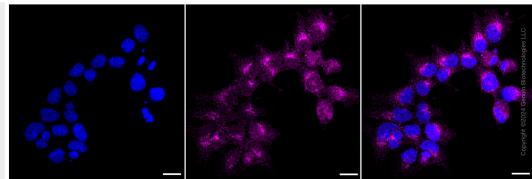
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Western blotting analysis using anti-ATG9A antibody (Cat#AGI1178). ATG9A expression in wild type (WT) and ATG9A shRNA knockdown (KD) HeLa cells with 30 µg of total cell lysates. β-Tubulin serves as a loading control. The blot was incubated with anti-ATG9A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



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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.