

KD-Validated Anti-Atg4C Rabbit Monoclonal Antibody
Rabbit monoclonal antibody
Catalog # AGI1427**Specification****KD-Validated Anti-Atg4C Rabbit Monoclonal Antibody - Product Information**

Application	WB, FC, ICC
Primary Accession	Q96DT6
Reactivity	Human
Clonality	Monoclonal
Isotype	Rabbit IgG
Calculated MW	Predicted, 52 kDa , observed, 52 kDa KDa
Gene Name	ATG4C
Aliases	ATG4C; Autophagy Related 4C Cysteine Peptidase; AUTL3; APG4C; AUTL1; Autophagy-Related Cysteine Endopeptidase 3; Autophagy-Related Protein 4 Homolog C; AUT-Like 3 Cysteine Endopeptidase; Cysteine Protease ATG4C; Autophagin-3; FLJ14867; HsAPG4C; AUT (S. Cerevisiae)-Like 1, Cysteine Endopeptidase; AUT-Like 1, Cysteine Endopeptidase (S. Cerevisiae); ATG4 Autophagy Related 4 Homolog C (S. Cerevisiae); APG4 Autophagy 4 Homolog C (S. Cerevisiae); Epididymis Secretory Sperm Binding Protein; Autophagy Related 4C, Cysteine Peptidase; ATG4 Autophagy Related 4 Homolog C; AUT-Like 1, Cysteine; Endopeptidase; APG4 Autophagy 4 Homolog C; EC 3.4.22.-; EC 3.4.22; APG4-C A synthesized peptide derived from human ATG4C
Immunogen	

KD-Validated Anti-Atg4C Rabbit Monoclonal Antibody - Additional Information

Gene ID	84938
Other Names	Cysteine protease ATG4C, 3.4.22.-, AUT-like 3 cysteine endopeptidase, Autophagy-related cysteine endopeptidase 3, Autophagin-3, Autophagy-related protein 4 homolog C, HsAPG4C, ATG4C {ECO:0000303 PubMed:21177865, ECO:0000312 HGNC:HGNC:16040}

KD-Validated Anti-Atg4C Rabbit Monoclonal Antibody - Protein Information**Name** ATG4C {ECO:0000303|PubMed:21177865, ECO:0000312|HGNC:HGNC:16040}**Function**

Cysteine protease that plays a key role in autophagy by mediating both proteolytic activation and

delipidation of ATG8 family proteins (PubMed:21177865, PubMed:29458288, PubMed:30661429). The protease activity is required for proteolytic activation of ATG8 family proteins: cleaves the C-terminal amino acid of ATG8 proteins MAP1LC3 and GABARAPL2, to reveal a C-terminal glycine (PubMed:21177865). 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 (By similarity). In addition to the protease activity, also mediates delipidation of ATG8 family proteins (PubMed:29458288, PubMed:33909989). Catalyzes delipidation of PE-conjugated forms of ATG8 proteins during macroautophagy (PubMed:29458288, PubMed:33909989). Compared to ATG4B, the major protein for proteolytic activation of ATG8 proteins, shows weaker ability to cleave the C-terminal amino acid of ATG8 proteins, while it displays stronger delipidation activity (PubMed:29458288). In contrast to other members of the family, weakly or not involved in phagophore growth during mitophagy (PubMed:33773106).

Cellular Location

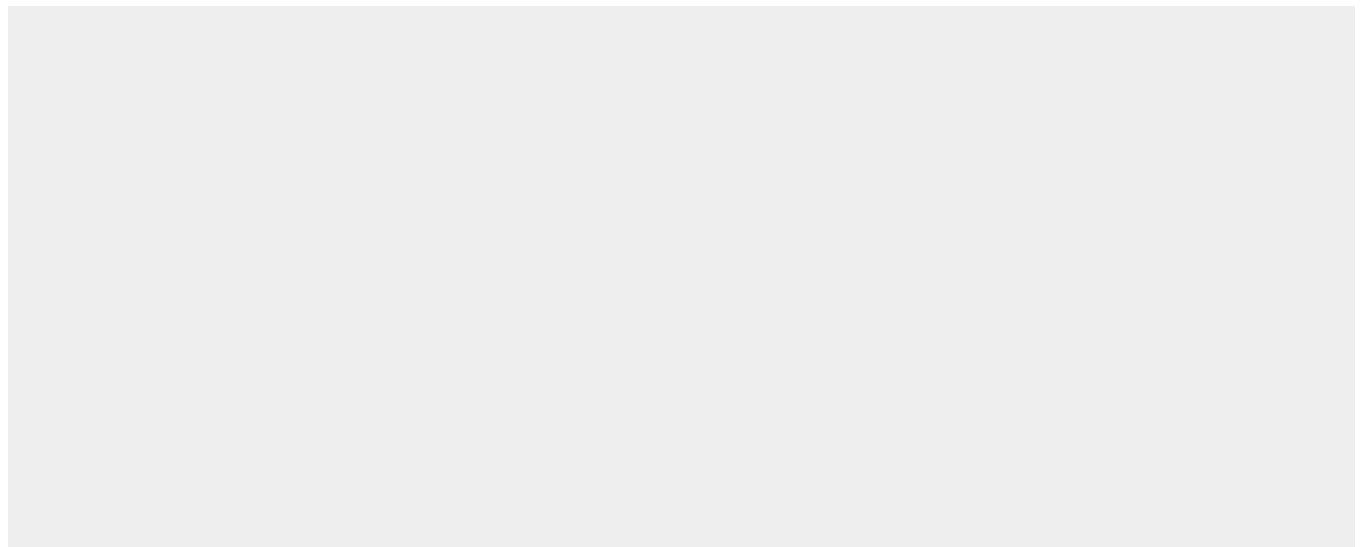
Cytoplasm {ECO:0000250|UniProtKB:Q8BGE6}.

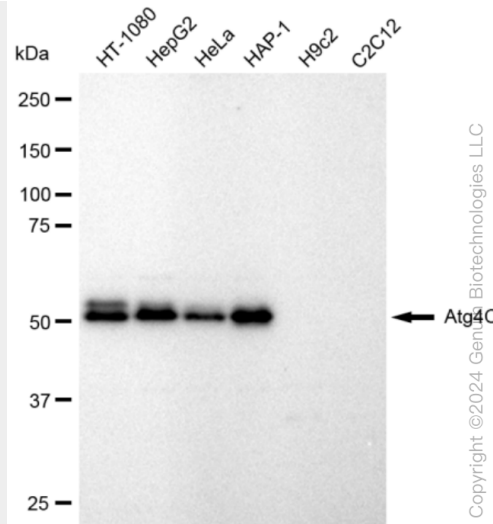
KD-Validated Anti-Atg4C Rabbit Monoclonal Antibody - Protocols

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

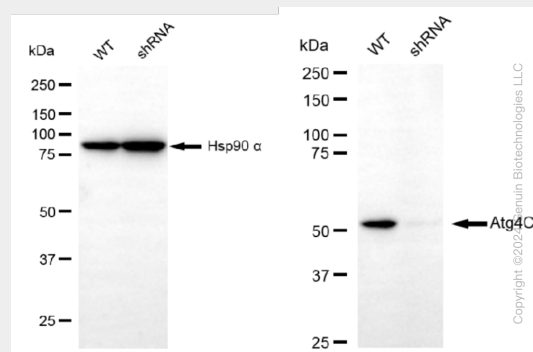
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

KD-Validated Anti-Atg4C Rabbit Monoclonal Antibody - Images

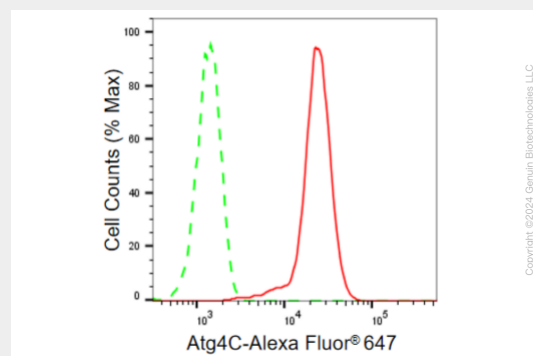




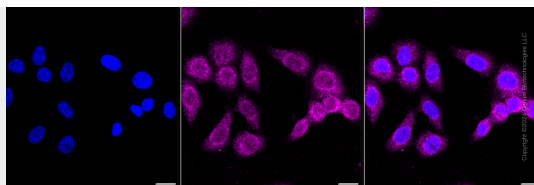
Western blotting analysis using anti-Atg4C antibody (Cat#AGI1427). Total cell lysates (30 µg) from various cell lines were loaded and separated by SDS-PAGE. The blot was incubated with anti-Atg4C antibody (Cat#AGI1427, 1:10,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Western blotting analysis using anti-Atg4C antibody (Cat#AGI1427). Atg4C expression in wild type (WT) and Atg4C 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-Atg4C antibody (Cat#AGI1427, 1:10,000) and HRP-conjugated goat anti rabbit secondary antibody respectively.



Flow cytometric analysis of Atg4C expression in HepG2 cells using Atg4C antibody (Cat#AGI1427, 1:2,000). Green, isotype control; red, Atg4C.



Immunocytochemical staining of HepG2 cells with Atg4C antibody (Cat#AGI1427, 1:1,000). Nuclei were stained blue with DAPI; Atg4C was stained magenta with Alexa Fluor® 647. Images were taken using Leica stellaris 5. Protein abundance based on laser Intensity and smart gain: Very low. Scale bar: 20 μ m.