

Anti-ATG4C Antibody
Rabbit polyclonal antibody to ATG4C
Catalog # AP60227**Specification**

Anti-ATG4C Antibody - Product Information

Application	WB, IF/IC, IHC
Primary Accession	Q96DT6
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	52497

Anti-ATG4C Antibody - Additional Information**Gene ID** 84938**Other Names**

APG4C; AUTL1; AUTL3; Cysteine protease ATG4C; AUT-like 3 cysteine endopeptidase; Autophagin-3; Autophagy-related cysteine endopeptidase 3; Autophagy-related protein 4 homolog C

Target/Specificity

KLH-conjugated synthetic peptide encompassing a sequence within the N-term region of human ATG4C. The exact sequence is proprietary.

Dilution

WB~~WB (1/500 - 1/1000), IH (1/100 - 1/200), IF/IC (1/100 - 1/500)
IF/IC~~N/A
IHC~~1:100~500

Format

Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.09% (W/V) sodium azide.

Storage

Store at -20 °C. Stable for 12 months from date of receipt

Anti-ATG4C 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

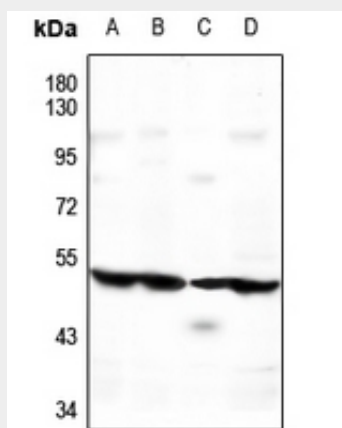
Cytoplasm {ECO:0000250|UniProtKB:Q8BGE6}.

Anti-ATG4C Antibody - Protocols

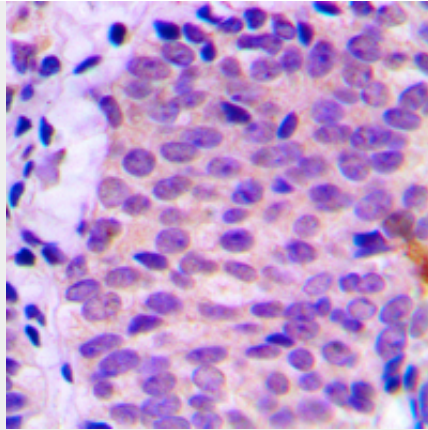
Provided below are standard protocols that you may find useful for product applications.

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

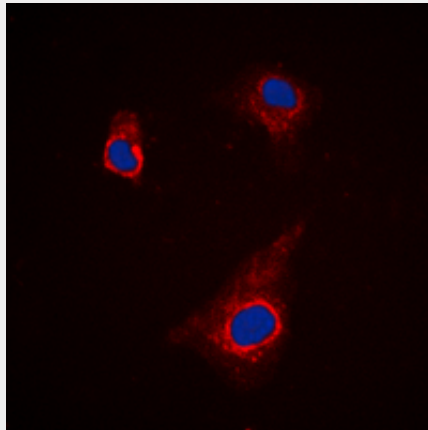
Anti-ATG4C Antibody - Images



Western blot analysis of ATG4C expression in AML12 (A), rat testis (B), MCF7 (C), LO2 (D) whole cell lysates.



Immunohistochemical analysis of ATG4C staining in human prostate cancer 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 ATG4C staining in K562 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 DyLight 594-conjugated secondary antibody (red) in PBS at room temperature in the dark. DAPI was used to stain the cell nuclei (blue).

Anti-ATG4C Antibody - Background

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