

Rabbit ATG4C Polyclonal Antibody | anti-ATG4C antibody

ATG4C Antibody

CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA326039	Rabbit	Human, Mouse, Rat	ELISA, Immunocytochemistry, Immunofluorescence, Immunohistochemistry, Western Blot

PRODUCT SYNONYMS

ATG4C; Polyclonal Antibody; ATG4C Antibody; APG4 autophagy 4 homolog C (S. cerevisiae); APG4 autophagy 4 homolog C; APG4 C; APG4-C; APG4C; ATG 4C; ATG4 autophagy related 4 homolog C (S. cerevisiae); ATG4 autophagy related 4 homolog C; Atg4c; ATG4C_HUMAN; AUT (S. cerevisiae) like 1; cysteine endopeptidase; AUT like 1; cysteine endopeptidase (S. cerevisiae); AUT like 3 cysteine endopeptidase; AUT-like 3 cysteine endopeptidase; AUTL1; AUTL3; Autophagin 3; Autophagin-3; Autophagy related 4C cysteine peptidase; Autophagy related cysteine endopeptidase 3; Autophagy related protein 4 homolog C; Autophagy-related cysteine endopeptidase 3; Autophagy-related protein 4 homolog C; Cysteine protease ATG4C; EC 3.4.22; FLJ14867; OTTHUMP00000010715; anti-ATG4C antibody

PRODUCT SPECIFICATIONS

Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Isotype	IgG
Specificity	ATG4C antibody detects endogenous levels of total ATG4C
Purity/Purification	The antiserum was purified by peptide affinity chromatography using SulfoLink Coupling Resin.
Form/Format	Liquid Phosphate buffered saline, pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol.
Concentration	1mg/ml (varies by lot)
Sequence Length	458
Applicable Applications for anti-ATG4C antibody	ELISA, ICC (Immunocytochemistry), IF (Immunofluorescence), IHC (Immunohistochemistry), WB (Western Blot)
Immunogen	A synthesized peptide derived from human ATG4C
Subcellular Location	Cytoplasm.
Tissue Specificity	Highly expressed in skeletal muscle, heart, liver and testis.
Conjugation	Unconjugated
Preparation and Storage	Store at -20 degree C. Stable for 12 months from date of receipt.

IMAGES



IF (Immunofluorescence)

AAA326039 staining Hela cells by IF/ICC. The sample were fixed with PFA and permeabilized in 0.1% Triton X-100, then blocked in 10% serum for 45 minutes at 25 degree C. The primary antibody was diluted at 1/200 and incubated with the sample for 1 hour at 37 degree C. An Alexa Fluor 594 conjugated goat anti-rabbit IgG (H+L) antibody, diluted at 1/600, was used as secondary antibody.



WB (Western Blot)

Western blot analysis of testis tissue lysate using ATG4C antibody. The lane on the left is treated with the antigen-specific peptide.



IHC (Immunohistochemistry)

AAA326039 at 1/100 staining Mouse muscle tissue by IHC-P. The sample was formaldehyde fixed and a heat mediated antigen retrieval step in citrate buffer was performed. The sample was then blocked and incubated with the antibody for 1.5 hours at 22 degree C. An HRP conjugated goat anti-rabbit antibody was used as the secondary.

ADDITIONAL INFORMATION

Related Product Information for anti-ATG4C antibody

Description: Autophagy is a catabolic process for the autophagosomic-lysosomal degradation of bulk cytoplasmic contents. Control of autophagy was largely discovered in yeast and involves proteins encoded by a set of autophagy-related genes (Atg) (1). Formation of autophagic vesicles requires a pair of essential ubiquitin-like conjugation systems, Atg12-Atg5 and Atg8-phosphatidylethanolamine (Atg8-PE), which are widely conserved in eukaryotes (2). Numerous mammalian counterparts to yeast Atg proteins have been described, including three Atg8 proteins (GATE-16, GABARAP, and LC3) and four Atg4 homologues (Atg4A/autophagin-2, Atg4B/autophagin-1, Atg4C/autophagin-3, and Atg4D/autophagin-4) (3-5). The cysteine protease Atg4 is pivotal to autophagosome membrane generation and regulation. Atg4 primes the Atg8 homologue for lipidation by cleaving its carboxy terminus and exposing its glycine residue for E1-like enzyme Atg7. The Atg8 homologue is transferred to the E2-like enzyme Atg3 before forming the Atg8-PE conjugate. During later stages of autophagy, Atg4 can reverse this lipidation event by cleaving PE, thereby recycling the Atg8 homologue (6). Atg4C-deficient mice display a tissue-specific decrease in LC3 lipidation only when under stressful conditions such as prolonged starvation. Mutant mice also exhibit increased susceptibility to the development of chemical carcinogen induced fibrosarcomas suggesting that Atg4C may contribute to events associated with tumor progression (7).

Function: Cysteine protease required for the cytoplasm to vacuole transport (Cvt) and autophagy. Is not essential for autophagy development under normal conditions but is required for a proper autophagic response under stressful conditions such as prolonged starvation (By similarity). Cleaves the C-terminal amino acid of ATG8 family proteins MAP1LC3 and GABARAPL2, 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. Has also an activity of delipidating enzyme for the PE-conjugated forms.

Similarity: Belongs to the peptidase C54 family.

NCBI AND UNIPROT INFORMATION

NCBI GI #	30410844
NCBI GeneID	84938
NCBI Accession #	NP_116241.2
NCBI GenBank Nucleotide #	NM_032852.3
UniProt Accession #	Q96DT6; Q96K04; A6NLR8; D3DQ58
Molecular Weight	Observed: 52 kDa Predicted: 53 kDa
NCBI Official Full Name	cysteine protease ATG4C

NCBI Official Synonym Full Names	autophagy related 4C cysteine peptidase
NCBI Official Symbol	ATG4C
NCBI Official Synonym Symbols	APG4C; AUTL1; AUTL3; APG4-C
NCBI Protein Information	cysteine protease ATG4C
UniProt Protein Name	Cysteine protease ATG4C
UniProt Gene Name	ATG4C
UniProt Synonym Gene Names	APG4C; AUTL1; AUTL3

For Research Use Only. Not for use in diagnostic or therapeutic procedures. Small volumes of product may become entrapped in the seal of the vial during shipment and storage; if necessary, briefly centrifuge the vial on a tabletop centrifuge to dislodge any liquid in the cap.

AAA Biotech | Tel: +1 (619) 604-9440 | Fax: +1 (619) 604-9441 | contact@aaabiotech.com

Online datasheet: <https://stage.aaabiotech.com/polyclonal/atg4c-antibody-immunocytochemistry-immunofluorescence-immunohistochemistry-western-blot-elisa/326039>