

Rabbit ATG4B Polyclonal Antibody | anti-ATG4B antibody

ATG4B Antibody (C-term)

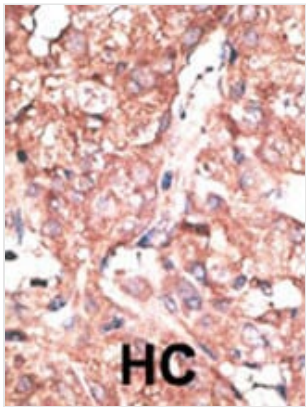
CATALOG #	HOST	REACTIVITY	APPLICATIONS
AAA286262	Rabbit	Human (Predicted Reactivity: Mouse)	Immunohistochemistry, Western Blot, ELISA, Immunofluorescence

PRODUCT SYNONYMS

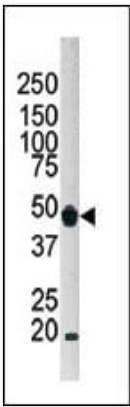
ATG4B; Polyclonal Antibody; ATG4B Antibody (C-term); Cysteine protease ATG4B; 3422-; AUT-like 1 cysteine endopeptidase; Autophagin-1; Autophagy-related cysteine endopeptidase 1; Autophagy-related protein 4 homolog B; hAPG4B; APG4B; AUTL1; KIAA0943; anti-ATG4B antibody

PRODUCT SPECIFICATIONS

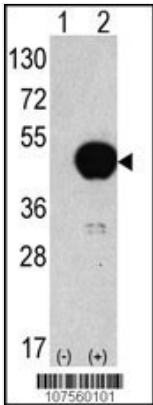
Host	Rabbit
Reactivity	Human (Predicted Reactivity: Mouse)
Clonality	Polyclonal
Isotype	Rabbit Ig
Specificity	This ATG4B antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 358-390 amino acids from the C-terminal region of human ATG4B.
Purity/Purification	Purified Rabbit Polyclonal Antibody (Pab)
Form/Format	Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is prepared by Saturated Ammonium Sulfate (SAS) precipitation followed by dialysis against PBS.
Concentration	Vial Concentration: 2 (varies by lot)
Sequence Positions	358-390
Sequence Length	393
Applicable Applications for anti-ATG4B antibody	IHC (Immunohistochemistry), WB (Western Blot), ELISA, IF (Immunofluorescence)
Antigen Type	Synthetic Peptide
Antigen Source	HUMAN
Preparation and Storage	Maintain refrigerated at 2-8 degree C for up to 6 months. For long term storage store at -20 degree C in small aliquots to prevent freeze-thaw cycles.



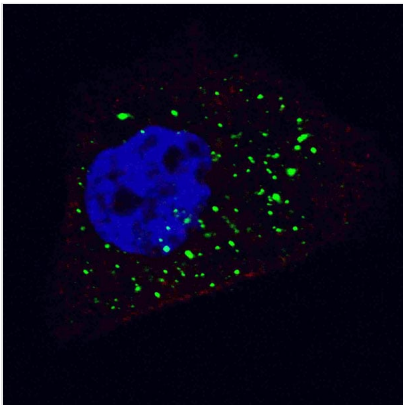
IHC (Immunohistochemistry)
Formalin-fixed and paraffin-embedded human cancer tissue reacted with the primary antibody, which was peroxidase-conjugated to the secondary antibody, followed by DAB staining. This data demonstrates the use of this antibody for immunohistochemistry; clinical relevance has not been evaluated. BC = breast carcinoma; HC = hepatocarcinoma.



WB (Western Blot)
Western blot analysis of anti-APG4B Pab in Hela cell lysate. APG4B (arrow) was detected using the purified Pab.



WB (Western Blot)
Western blot analysis of anti-hAPG4B-373 Pab in 293 cell line lysates transiently transfected with the ATG4B gene (2ug/lane). hAPG4B-373(arrow) was detected using the purified Pab.



IF (Immunofluorescence)
Fluorescent image of U251 cells stained with ATG4B (C-term) antibody. U251 cells were treated with Chloroquine (50 uM,16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AAA286262 ATG4B (C-term) primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor 488 conjugated donkey anti-rabbit antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 ug/ml, 5 min). ATG4B immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.

ADDITIONAL INFORMATION

Related Product Information for anti-ATG4B antibody	Macroautophagy is the major inducible pathway for the general turnover of cytoplasmic constituents in eukaryotic cells, it is also responsible for the degradation of active cytoplasmic enzymes and organelles during nutrient starvation. Macroautophagy involves the formation of double-membrane bound autophagosomes which enclose the cytoplasmic constituent targeted for degradation in a membrane bound structure, which then fuse with the lysosome (or vacuole) releasing a single-membrane bound autophagic bodies which are then degraded within the lysosome (or vacuole). APG4 is a cysteine protease required for autophagy, which cleaves the C-terminal part of either MAP1LC3, GABARAPL2 or GABARAP, allowing the liberation of form I. A subpopulation of form I is subsequently converted to a smaller form (form II). Form II, with a revealed C-terminal glycine, is considered to be the phosphatidylethanolamine (PE)-conjugated form, and has the capacity for the binding to autophagosomes.
Product Categories/Family for anti-ATG4B antibody	Cancer; Cardiovascular; Cell Biology; Metabolism; Autophagy

References

References for protein:
1.Baehrecke EH. Nat Rev Mol Cell Biol. 6(6):505-10. (2005)
2. Lum JJ, et al. Nat Rev Mol Cell Biol. 6(6):439-48. (2005)
3.Greenberg JT. Dev Cell. 8(6):799-801. (2005)
4.Levine B. Cell. 120(2):159-62. (2005)
5.Shintani T and Klionsky DJ. Science. 306(5698):990-5. (2004)
References for U251 cell line:
1. Westermarck B.; Pontén J.; Hugosson R. (1973)." Determinants for the establishment of permanent tissue culture lines from human gliomas". Acta Pathol Microbiol Scand A. 81:791-805. [PMID: 4359449].
2. Pontén, J.,Westermarck B. (1978)." Properties of Human Malignant Glioma Cells in Vitro". Medical Biology 56: 184-193.[PMID: 359950].
3. Geng Y.;Kohli L.; Klocke B.J.; Roth K.A.(2010). "Chloroquine-induced autophagic vacuole accumulation and cell death in glioma cells is p53 independent". Neuro Oncol. 12(5): 473-481.[PMID: 20406898].

NCBI AND UNIPROT INFORMATION

NCBI GI #	47132611
NCBI GeneID	23192
NCBI Accession #	NP_037457.3; NP_847896.1
NCBI GenBank Nucleotide #	NM_013325.4
UniProt Accession #	Q9Y4P1; Q53NU4; Q6ZUV8; Q8WYM9; Q96K07; Q96K96; Q96SZ1; Q9Y2F2; B7WNK2
Molecular Weight	44294
NCBI Official Full Name	cysteine protease ATG4B isoform a
NCBI Official Synonym Full Names	autophagy related 4B, cysteine peptidase
NCBI Official Symbol	ATG4B
NCBI Official Synonym Symbols	APG4B; AUTL1
NCBI Protein Information	cysteine protease ATG4B
UniProt Protein Name	Cysteine protease ATG4B
UniProt Gene Name	ATG4B
UniProt Synonym Gene Names	APG4B; AUTL1; KIAA0943; hAPG4B
UniProt Entry Name	ATG4B_HUMAN

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.