

DANRE atg4b Antibody (N-term)
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # Azb10037a

Specification

DANRE atg4b Antibody (N-term) - Product Information

Application	WB,E
Primary Accession	Q6DG88
Reactivity	Zebrafish
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	44453
Antigen Region	1-30

DANRE atg4b Antibody (N-term) - Additional Information

Other Names

Cysteine protease ATG4B, 3422-, Autophagy-related protein 4 homolog B, atg4b, apg4b

Target/Specificity

This DANRE atg4b antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 1-30 amino acids from the N-terminal region of DANRE atg4b.

Dilution

WB~~1:1000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

DANRE atg4b Antibody (N-term) is for research use only and not for use in diagnostic or therapeutic procedures.

DANRE atg4b Antibody (N-term) - Protein Information

Name atg4b {ECO:0000250|UniProtKB:Q9Y4P1}

Function Cysteine protease that plays a key role in autophagy by mediating both proteolytic activation and delipidation of ATG8 family proteins. Required for canonical autophagy (macroautophagy), non- canonical autophagy as well as for mitophagy. The protease activity is required for proteolytic activation of ATG8 family proteins: cleaves the C-terminal amino acid of ATG8 proteins 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. Protease activity is also required to counteract formation of high-molecular weight conjugates of ATG8 proteins (ATG8ylation): acts as a deubiquitinating-like enzyme that removes ATG8 conjugated to other proteins, such as ATG3. In addition to the protease activity, also mediates delipidation of ATG8 family proteins. Catalyzes delipidation of PE-conjugated forms of ATG8 proteins during macroautophagy. Also involved in non-canonical autophagy, a parallel pathway involving conjugation of ATG8 proteins to single membranes at endolysosomal compartments, by catalyzing delipidation of ATG8 proteins conjugated to phosphatidylserine (PS).

Cellular Location

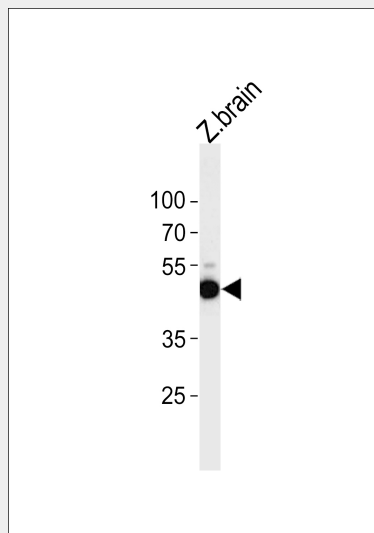
Cytoplasm {ECO:0000250|UniProtKB:Q9Y4P1}. Cytoplasm, cytosol {ECO:0000250|UniProtKB:Q9Y4P1}. Cytoplasmic vesicle, autophagosome {ECO:0000250|UniProtKB:Q9Y4P1}. Endoplasmic reticulum {ECO:0000250|UniProtKB:Q9Y4P1}. Mitochondrion {ECO:0000250|UniProtKB:Q9Y4P1}. Note=Mainly localizes to the cytoplasm, including cytosol. {ECO:0000250|UniProtKB:Q9Y4P1}

DANRE atg4b Antibody (N-term) - Protocols

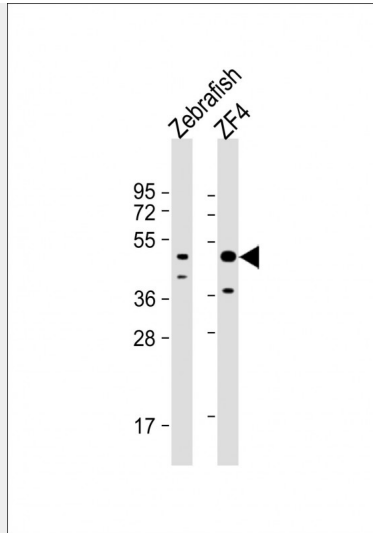
Provided below are standard protocols that you may find useful for product applications.

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

DANRE atg4b Antibody (N-term) - Images



DANRE atg4b Antibody (N-term) (Cat. #Azb10037a) western blot analysis in zebra fish brain tissue lysates (35ug/lane). This demonstrates the DANRE atg4b antibody detected the DANRE atg4b protein (arrow).



All lanes : Anti-(DANRE) atg4b Antibody (N-term) at 1:1000 dilution Lane 1: Zebrafish lysate Lane 2: ZF4 whole cell lysate Lysates/proteins at 20 µg per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 44 kDa Blocking/Dilution buffer: 5% NFDN/TBST.

DANRE atg4b Antibody (N-term) - Background

Cysteine protease required for autophagy, which is able to cleave the C-terminal part of proteins that may be subsequently converted to a smaller form, with a revealed C-terminal glycine, considered to be the phosphatidylethanolamine (PE)-conjugated form. This conjugated form has the capacity for the binding to autophagosomes (By similarity).