

## Rabbit ATG4D Polyclonal Antibody | anti-ATG4D antibody

ATG4D Antibody

|                               |                       |                                                              |                                                                  |
|-------------------------------|-----------------------|--------------------------------------------------------------|------------------------------------------------------------------|
| CATALOG #<br><b>AAA290672</b> | HOST<br><b>Rabbit</b> | REACTIVITY<br><b>Human; Predicted Reactivity: Mouse, Pig</b> | APPLICATIONS<br><b>ELISA, Immunohistochemistry, Western Blot</b> |
|-------------------------------|-----------------------|--------------------------------------------------------------|------------------------------------------------------------------|

### PRODUCT SYNONYMS

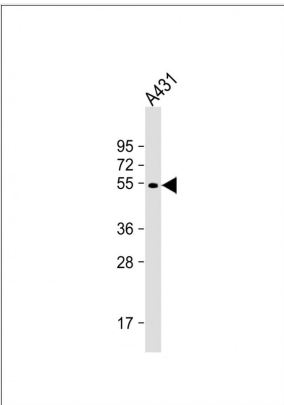
ATG4D; Polyclonal Antibody; ATG4D Antibody; Cysteine protease ATG4D; 3422-; AUT-like 4 cysteine endopeptidase; Autophagin-4; Autophagy-related cysteine endopeptidase 4; Autophagy-related protein 4 homolog D; mitochondrial; APG4D; AUTL4; anti-ATG4D antibody

### PRODUCT SPECIFICATIONS

|                                                 |                                                                                                                                                                              |
|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Host                                            | Rabbit                                                                                                                                                                       |
| Reactivity                                      | Human; Predicted Reactivity: Mouse, Pig                                                                                                                                      |
| Clonality                                       | Polyclonal                                                                                                                                                                   |
| Isotype                                         | Ig                                                                                                                                                                           |
| Specificity                                     | This ATG4D antibody is generated from rabbits immunized with a KLH conjugated synthetic peptide between 326~356 amino acids surrounding S341 of human APG4D.                 |
| Form/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. |
| Sequence Length                                 | 411                                                                                                                                                                          |
| Applicable Applications for anti-ATG4D antibody | ELISA, IHC (Immunohistochemistry), WB (Western Blot)                                                                                                                         |
| Subtitle                                        | Peptide Affinity Purified Rabbit Polyclonal Antibody (Pab)                                                                                                                   |
| Cellular Location                               | Cysteine protease ATG4D: Cytoplasm.                                                                                                                                          |
| Tissue Location                                 | Mainly expressed in skeletal muscle and, to a lower extent, in testis.                                                                                                       |
| Antigen Region                                  | 326-356 aa                                                                                                                                                                   |
| Antigen Type                                    | Synthetic Peptide                                                                                                                                                            |
| 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 skeletal muscle tissue reacted with APG4D Antibody (S341), 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.



**WB (Western Blot)**  
Anti APG4D (S341) Antibody at 1:1000 dilution + A431 whole cell lysate. Lysates/proteins at 20 ug per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 53 kDa. Blocking/Dilution buffer: 5% NFDm/TBST.

ADDITIONAL INFORMATION

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|-----------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Related Product Information for anti-ATG4D antibody | <p>Description: 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. 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).</p> <p>Background: Cysteine protease ATG4D: Cysteine protease required for the cytoplasm to vacuole transport (Cvt) and autophagy. 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.</p> |
| Product Categories/Family for anti-ATG4D antibody   | Primary Antibodies; Cancer; Cardiovascular; Cell Biology; Metabolism                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| References                                          | Baehrecke EH. Nat Rev Mol Cell Biol. 6 (6):505-10. (2005). Lum JJ, et al. Nat Rev Mol Cell Biol. 6 (6):439-48. (2005). Greenberg JT. Dev Cell. 8 (6):799-801. (2005). Levine B. Cell. 120 (2):159-62. (2005). Shintani T and Klionsky DJ. Science. 306 (5698):990-5. (2004).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |

NCBI AND UNIPROT INFORMATION

|                                  |                                         |
|----------------------------------|-----------------------------------------|
| NCBI GI #                        | 528078306                               |
| NCBI GeneID                      | 84971                                   |
| NCBI Accession #                 | NP_001268433.1                          |
| NCBI GenBank Nucleotide #        | NM_001281504.1                          |
| UniProt Accession #              | Q86TL0; Q969K0                          |
| Molecular Weight                 | 52922 Da                                |
| NCBI Official Full Name          | cysteine protease ATG4D isoform 2       |
| NCBI Official Synonym Full Names | autophagy related 4D cysteine peptidase |

|                               |                         |
|-------------------------------|-------------------------|
| NCBI Official Symbol          | ATG4D                   |
| NCBI Official Synonym Symbols | APG4D; AUTL4; APG4-D    |
| NCBI Protein Information      | cysteine protease ATG4D |
| UniProt Protein Name          | Cysteine protease ATG4D |
| UniProt Gene Name             | <b>ATG4D</b>            |
| UniProt Synonym Gene Names    | APG4D; AUTL4            |
| UniProt Entry Name            | ATG4D_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.

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Online datasheet: <https://stage.aaabiotech.com/polyclonal/atg4d-antibody-immunohistochemistry-western-blot-elisa/290672>