

Anti-ATG4A Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

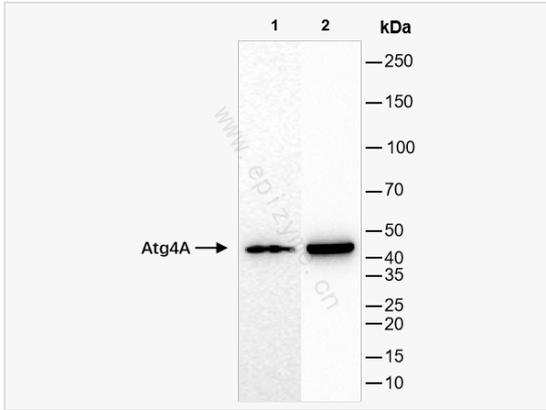
Catalog # R014001

Product Information

Application	ELISA, IHC-P/IF (Tissue-P), WB, IF (Cell)/ICC
Reactivity	Mouse, Rat, Human
Dilution	WB 1:1,000~1:2,000; IHC-P 1:100~1:200; IF 1:100~1:200
Host	Rabbit
Clonality	Monoclonal
Clone No.	96N44G21
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human Atg4A
Format	Affinity purified monoclonal antibody supplied in PBS with 0.01% sodium azide and 50% glycerol, pH 7.3.
Storage	Shipped on wet ice. Store at -20°C. Stable for 24 months from date of receipt. Aliquoting is unnecessary for -20°C storage.
Precautions	Anti-ATG4A Rabbit mAb [96N44G21] is for research use only and not for use in diagnostic or therapeutic procedures.

Protein Information

Synonyms	AI627006, APG4 autophagy 4 homolog A, Apg4a, ATG4 autophagy related 4 homolog A (S. cerevisiae), ATG4 autophagy related 4 homolog A, ATG4A, ATG4A_HUMAN, Atg4a, AUT like 2 cysteine endopeptidase, AUT-like 2 cysteine endopeptidase, Autl2, Autophagin 2, Autophagin-2, Autophagy related 4A cysteine peptidase, Autophagy related cysteine endopeptidase 2, Autophagy related protein 4 homolog A, Autophagy-related cysteine endopeptidase 2, Autophagy-related protein 4 homolog A, AV169859, Cysteine protease ATG4A, hAPG4A, MGC107179.
Calculated MW	Calculated MW: 45 kDa; Observed MW: 45 kDa
Uniprot ID	Q8WYN0
Background	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.
Cellular Location	Cytoplasm.
Tissue Location	Widely expressed, at a low level, and the highest expression is observed in skeletal muscle and brain. Also detected in fetal liver.



Western Blot - Anti-ATG4A Rabbit mAb [96N44G21]

All lanes: R014001 at 1:1,000 dilution

Lane 1: HepG2 (Human hepatocarcinoma epithelial cell) whole cell lysates

Lane 2: Rat heart whole tissue lysates

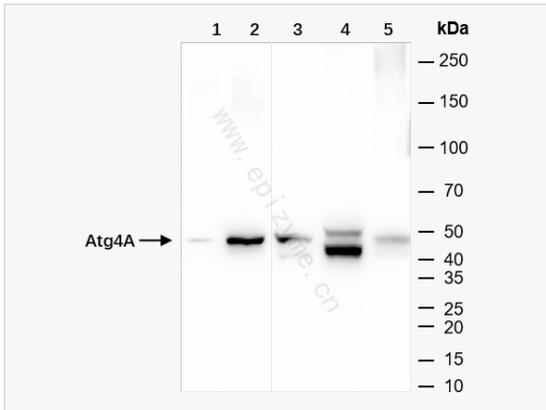
Lysates/proteins at 10 µg per lane.

Secondary antibody: Goat Anti-Rabbit IgG(H+L), HRP Conjugated (Cat. No. LF102) at 1:5,000 dilution

Predicted band size: 45 kDa

Observed band size: 45 kDa

Developed using the ECL technique (Cat. No. SQ201).



Western Blot - Anti-ATG4A Rabbit mAb [96N44G21]

All lanes: R014001 at 1:1,000 dilution

Lane 1: Rat muscle whole tissue lysates

Lane 2: Rat heart whole tissue lysates

Lane 3: Rat kidney whole tissue lysates

Lane 4: Mouse brain whole tissue lysates

Lane 5: Mouse heart whole tissue lysates

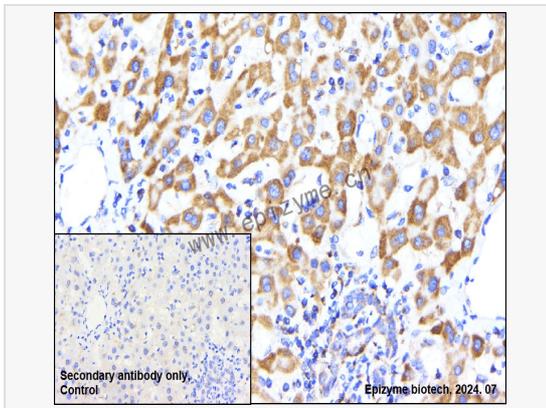
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Immunohistochemistry - Anti-ATG4A Rabbit mAb [96N44G21]

Sample: Paraformaldehyde-fixed, paraffin embedded rat muscle tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R014001 at 1:200 dilution

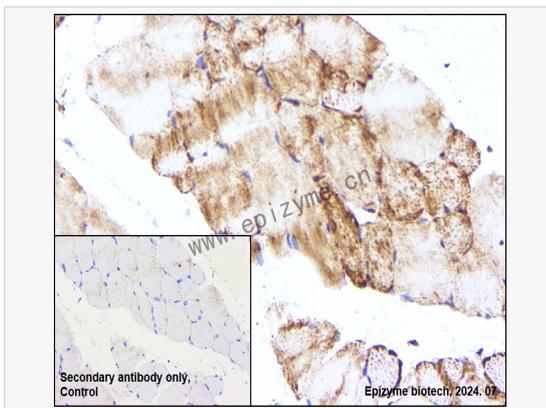
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunohistochemistry - Anti-ATG4A Rabbit mAb [96N44G21]

Sample: Paraformaldehyde-fixed, paraffin embedded human hepatoma tissue

Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.

Primary antibody: R014001 at 1:200 dilution

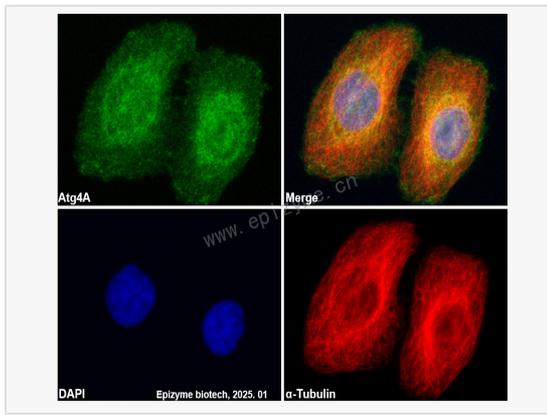
Secondary antibody: Goat Anti-Rabbit IgG (H+L), HRP conjugated at 1:1,000 dilution

DAB was used as the chromogen.

Counter stained with hematoxylin.

Positive/negative staining were presented.

Only the secondary antibody was used as the negative control.



Immunofluorescence - Anti-ATG4A Rabbit mAb [96N44G21]

Sample: HeLa cells

The cells were fixed with 4% paraformaldehyde (10 min), permeabilized with 0.5% Triton X-100 for 10 minutes and then blocked with 5% BSA in 0.1% PBS-Tween for 0.5 hours.

Primary antibodies: R014001 at 1:100 dilution and α -tubulin Mouse Monoclonal Antibody (Cat. No. LF209) at 1:100 dilution

Secondary antibodies: Goat anti-Rabbit (488) at 1:1,000 dilution (shown in green) and Goat anti-Mouse (555) at 1:1,000 dilution (shown in red)

Nuclei were stained with DAPI (shown in blue).