Anti-ATG5 Rabbit mAb

Purified Recombinant Rabbit Monoclonal Antibody

Catalog # R013751

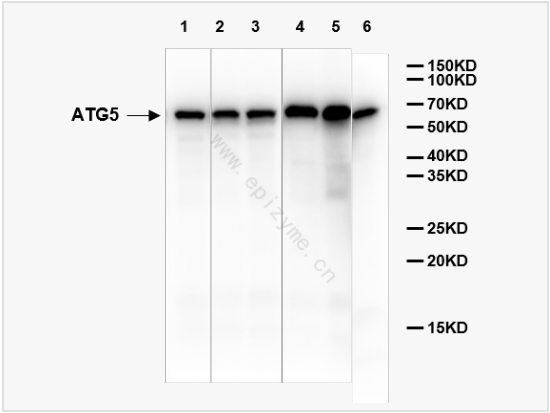
Product Information

Application	WB, IHC-P/IF (Tissue-P), IF (Cell)/ICC, ELISA
Reactivity	Rat, Human, Mouse
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.	70B28L17
Isotype	IgG
Label	Unconjugated
Immunogen	A synthesized peptide derived from human ATG5
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-ATG5 Rabbit mAb [70B28L17] is for research use only and not for use in diagnostic or therapeutic procedures.

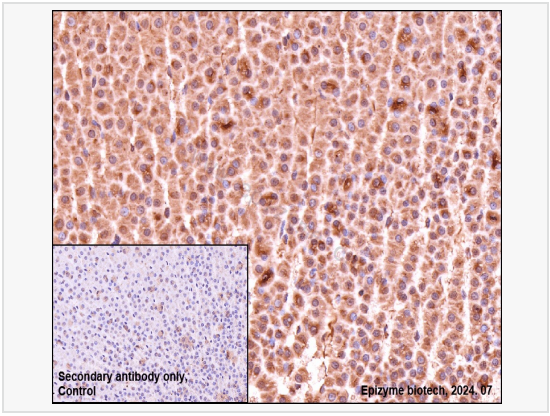
Protein Information

Synonyms	APG 5, APG 5L, APG5, APG5 autophagy 5 like, APG5 like, APG5-like, APG5L, Apoptosis specific protein, Apoptosis-specific protein, ASP, ATG 5, Atg5, ATG5 autophagy related 5 homolog, ATG5_HUMAN, Autophagy protein 5, Autophagy related 5, hAPG5, Homolog of S Cerevisiae autophagy 5, OTTHUMP00000040507.
Calculated MW	Calculated MW: 32 kDa; Observed MW: 55 kDa
Uniprot ID	Q9H1Y0
Gene ID	9474
Background	Involved in autophagy vesicles formation. Conjugation with ATG12 through an ubiquitin-like conjugating system involving ATG7 as an E1-like activating enzyme and ATG10 as an E2-like conjugating enzyme, is essential for its function. The ATG12-ATG5 conjugate acts as an E3-like enzyme which is required for lipidation of ATG8 family proteins and their association to the vesicle membranes. Involved in mitochondrial quality control after oxidative damage, and in subsequent cellular longevity. The ATG12- ATG5 conjugate also regulates negatively the innate antiviral immune response by blocking the type I IFN production pathway through direct association with RARRES3 and MAVS. Plays also a role in translation or delivery of incoming viral RNA to the translation apparatus. HCV utilizes ATG5 as a proviral factor during the onset of viral infection. Plays a critical role in multiple aspects of lymphocyte development and is essential for both B and T lymphocyte survival and proliferation. Required for optimal processing and presentation of antigens for MHC II. Involved in the maintenance of axon morphology and membrane structures; as well as in normal adipocyte differentiation. Promotes primary ciliogenesis through removal of OFD1 from centriolar satellites and degradation of IFT20 via the autophagic pathway.
Cellular Location	Cytoplasm. Preautophagosomal structure membrane. Colocalizes with nonmuscle actin. The conjugate detaches from the

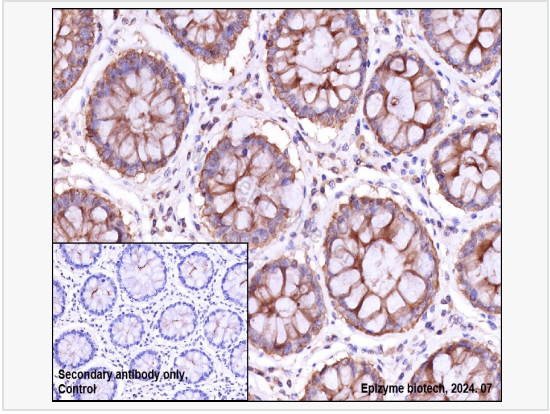
Validation Images



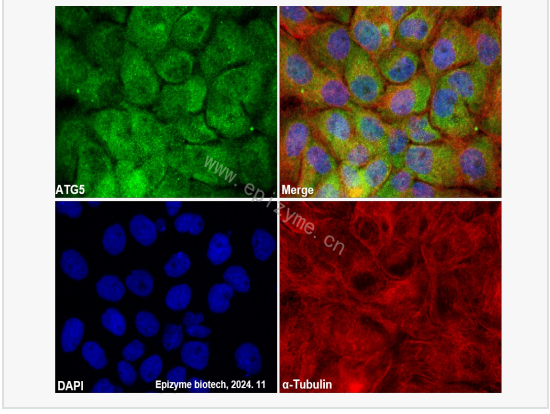
Western Blot - Anti-ATG5 Rabbit mAb [70B28L17]
All lanes: R013751 at 1:1,000 dilution
Lane 1: Jurkat (human T lymphocytic leukemia cell) whole cell lysates
Lane 2: T24 (human bladder cancer epithelial cell) whole cell lysates
Lane 3: HepG2 (human hepatocellular carcinoma epithelial cell) whole cell lysates
Lane 4: Rat brain whole tissue lysates
Lane 5: Rat liver whole tissue lysates
Lane 6: Balb/c mouse lung 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: 32 kDa
Observed band size: 55 kDa
Developed using the ECL technique (Cat. No. SQ201).



Immunohistochemistry - Anti-ATG5 Rabbit mAb [70B28L17]
Sample: Paraformaldehyde-fixed, paraffin embedded rat adrenal gland tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013751 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-ATG5 Rabbit mAb [70B28L17]
Sample: Paraformaldehyde-fixed, paraffin embedded human colorectal carcinoma tissue
Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0) for 30 mins.
Primary antibody: R013751 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-ATG5 Rabbit mAb [70B28L17]
Sample: A431 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: R013751 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).