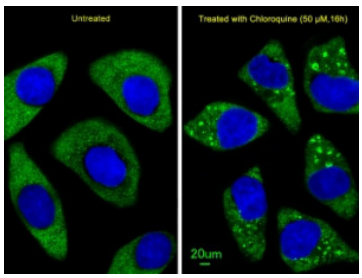
ATG7 Antibody / Autophagy Flux Antibody (F54380)

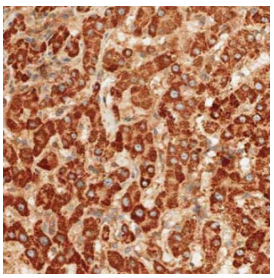
Catalog No.	Formulation	Size
F54380-0.4ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.4 ml
F54380-0.08ML	In 1X PBS, pH 7.4, with 0.09% sodium azide	0.08 ml

Bulk quote request

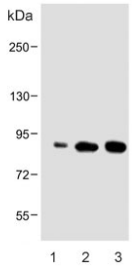
Species Reactivity	Human, Mouse
Format	Purified
Host	Rabbit
Clonality	Polyclonal (rabbit origin)
Isotype	Rabbit Ig
Purity	Antigen affinity purified
UniProt	O95352
Applications	Immunofluorescence: 1:25 Western blot: 1:500-1:2000 Immunohistochemistry (FFPE): 1:25
Limitations	This ATG7 Antibody / Autophagy Flux Antibody is available for research use only.



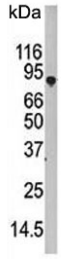
ATG7 Antibody Autophagy Flux IF. Immunofluorescence staining was performed on untreated and chloroquine-treated (50 uM, 16 hours) human U-251 cells using ATG7 Antibody (green) with DAPI nuclear counterstain (blue). Untreated cells display predominantly diffuse cytoplasmic staining, whereas chloroquine treatment results in prominent punctate ATG7 staining throughout the cytoplasm, consistent with accumulation of autophagy-related structures following inhibition of autophagic flux. These results demonstrate that this Autophagy Flux Antibody is suitable for monitoring ATG7 localization during pharmacological modulation of autophagy.



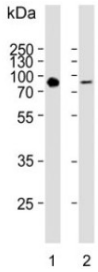
ATG7 Antibody Human Liver IHC. Immunohistochemistry was performed on FFPE human liver tissue using ATG7 Antibody. Heat-induced epitope retrieval was performed by steaming tissue sections in pH 9 EDTA buffer for 20 minutes followed by cooling prior to incubation with the primary antibody. Bound antibody was visualized using an HRP-conjugated secondary antibody and DAB chromogen. Strong cytoplasmic staining is observed throughout hepatocytes with minimal background staining, consistent with endogenous ATG7 expression in liver tissue. These results demonstrate that this Autophagy Flux Antibody is suitable for immunohistochemical detection of ATG7 in formalin-fixed, paraffin-embedded human liver tissue.



Western blot testing of human 1) Caki-1, 2) HeLa and 3) HepG2 cell lysate with ATG7 antibody. Predicted molecular weight: 70-80 kDa.



Western blot testing of human HEK293 cell lysate with ATG7 antibody. Predicted molecular weight: 70-80 kDa.



Western blot testing of 1) human HepG2 and 2) mouse NIH 3T3 cell lysate with ATG7 antibody. Predicted molecular weight: 70-80 kDa.

Description

ATG7 Antibody is widely used in studies of autophagy flux because ATG7 functions as an essential E1-like activating enzyme required for autophagosome formation. Encoded by the ATG7 gene, this protein activates the ubiquitin-like proteins ATG12 and members of the ATG8 family, including LC3, initiating conjugation reactions that drive autophagosome biogenesis. Since alterations in ATG7 activity directly influence autophagic flux, researchers frequently monitor ATG7 expression and localization when evaluating autophagy induction, inhibition, and overall pathway activity. NSJ Bioreagents provides this ATG7 Antibody to support investigations of autophagy flux and intracellular protein turnover.

Autophagy flux describes the complete progression of the autophagy pathway, from autophagosome formation through lysosomal degradation of intracellular cargo. Measuring flux provides more meaningful information than simply detecting autophagosomes because increased autophagosome numbers may reflect either enhanced autophagy initiation or impaired degradation. Experimental treatments such as nutrient deprivation, lysosomal inhibitors, or pharmacological agents including chloroquine are commonly used to alter autophagic flux and assess pathway regulation. ATG7 Antibody enables investigators to evaluate changes in ATG7 expression and cellular localization during these experiments while complementing established autophagy markers such as LC3, SQSTM1/p62, Beclin 1, and ATG5.

Disruption of autophagy flux has been implicated in numerous biological processes and disease models, including cancer, neurodegenerative disorders, infection, metabolic disease, liver injury, aging, and immune regulation. Because ATG7 functions near the beginning of the autophagy conjugation cascade, analysis of its expression provides valuable insight into mechanisms controlling autophagosome formation and overall pathway regulation. Researchers commonly combine ATG7 Antibody with pharmacological modulators or genetic approaches to investigate how alterations in autophagic flux influence cell survival, stress responses, organelle quality control, and therapeutic sensitivity.

ATG7 Antibody supports studies of autophagy flux by enabling analysis of ATG7 expression and intracellular localization

during autophagy modulation. Combined with complementary autophagy markers and functional assays, detection of ATG7 contributes to a more comprehensive understanding of autophagic activity, pathway regulation, and the molecular mechanisms that maintain cellular homeostasis.

To learn more about this target, explore our ATG7 Antibody / Autophagy Related E1 Enzyme Antibody page featuring additional information and antibodies for detecting ATG7.

Application Notes

The stated application concentrations are suggested starting points. Titration of the ATG7 Antibody / Autophagy Flux Antibody may be required due to differences in protocols and secondary/substrate sensitivity.

Immunogen

A portion of amino acids 540-569 from the human protein was used as the immunogen for the ATG7 antibody.

Storage

Aliquot the ATG7 antibody and store frozen at -20oC or colder. Avoid repeated freeze-thaw cycles.

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