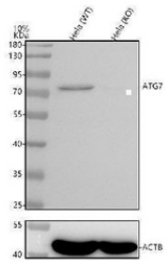
ATG7 Antibody / Knockout Validated Antibody [clone ACHA-1] (RQ4805)

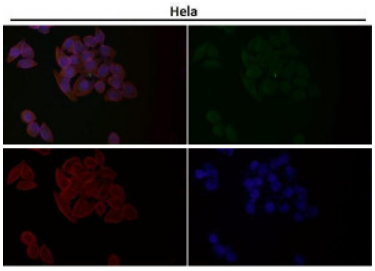
Catalog No.	Formulation	Size
RQ4805	Antibody in PBS with 0.02% sodium azide, 50% glycerol and 0.4-0.5mg/ml BSA	100 ul

Bulk quote request

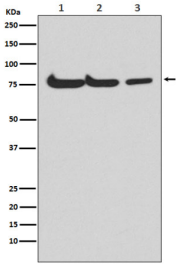
Availability	1-2 weeks
Species Reactivity	Human, Mouse, Rat
Format	Purified
Host	Rabbit
Clonality	Rabbit Monoclonal
Isotype	Rabbit IgG
Clone Name	ACHA-1
Purity	Affinity purified
UniProt	O95352
Applications	Western blot: 1:500-1:2000 Immunofluorescence: 1:50-1:200
Limitations	This ATG7 Antibody / Knockout Validated Antibody is available for research use only.



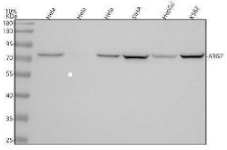
ATG7 Antibody Knockout Validated WB. Western blot analysis was performed using ATG7 Antibody at 0.5 ug/ml. Lane 1: human HeLa wild-type whole cell lysate; lane 2: human HeLa ATG7 knockout whole cell lysate. Proteins were separated on a 10% SDS-PAGE gel, transferred to a nitrocellulose membrane, and the blot was incubated with the primary antibody overnight at 4Â°C. Bound antibody was detected using an HRP-conjugated goat anti-rabbit IgG secondary antibody and enhanced chemiluminescence. A specific immunoreactive band is detected at approximately 78 kDa in the wild-type lysate but is absent in the ATG7 knockout lysate, while ACTB serves as the loading control. These results demonstrate that this Knockout Validated Antibody specifically recognizes ATG7 and provides high-confidence target detection by Western blot.



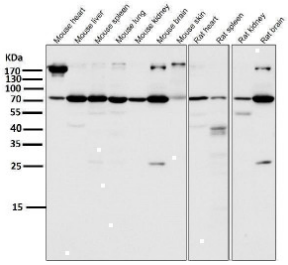
ATG7 Antibody HeLa Cell IF. Immunofluorescence analysis was performed on human HeLa cells using ATG7 Antibody at a 1:50 dilution. Bound antibody was detected with a green fluorescent secondary antibody, while F-actin was counterstained in red and nuclei were counterstained in blue. The merged image demonstrates diffuse cytoplasmic ATG7 staining with minimal nuclear signal, consistent with the expected intracellular localization of ATG7. These results demonstrate that this Knockout Validated Antibody is suitable for immunofluorescent detection of ATG7 in cultured human cells.



ATG7 Antibody Human, Mouse and Rat WB. Western blot analysis was performed using ATG7 Antibody. Lane 1: human HepG2 cell lysate; lane 2: mouse spleen lysate; lane 3: rat kidney lysate. A specific immunoreactive band is detected at approximately 78 kDa in all three samples, consistent with the expected molecular weight of ATG7. Comparable expression is observed in human, mouse, and rat lysates with minimal background staining. These results demonstrate that this Knockout Validated Antibody is suitable for Western blot detection of ATG7 across multiple species.



ATG7 Antibody Human Cell Line WB. Western blot analysis was performed using ATG7 Antibody. Lane 1: human HeLa whole cell lysate; lane 2: human HeLa whole cell lysate; lane 3: human HeLa whole cell lysate; lane 4: human SiHa whole cell lysate; lane 5: human HepG2 whole cell lysate; lane 6: human K562 whole cell lysate. Proteins were separated on a 5-20% SDS-PAGE gel, transferred to a nitrocellulose membrane, and the blot was incubated with the primary antibody overnight at 4Â°C. Bound antibody was detected using an HRP-conjugated goat anti-rabbit IgG secondary antibody and enhanced chemiluminescence. A specific immunoreactive band is detected at approximately 78 kDa in all tested cell lines, consistent with the expected molecular weight of ATG7. These results demonstrate that this Knockout Validated Antibody is suitable for Western blot detection of ATG7 in human cell lysates.



ATG7 Antibody Mouse and Rat Tissue WB. Western blot analysis was performed using ATG7 Antibody on mouse heart, mouse liver, mouse spleen, mouse lung, mouse kidney, mouse brain, mouse skin, rat heart, rat spleen, rat kidney, and rat brain tissue lysates. A prominent immunoreactive band is detected at approximately 78 kDa in all examined tissues, consistent with the expected molecular weight of ATG7. Differences in band intensity reflect tissue-specific expression levels, while additional higher or lower molecular weight bands may represent isoforms, post-translationally modified species, or nonspecific reactivity. These results demonstrate that this Knockout Validated Antibody is suitable for Western blot detection of ATG7 in mouse and rat tissues.

Description

ATG7 Antibody is a knockout validated antibody for detecting Autophagy Related Protein 7, an essential E1-like activating enzyme encoded by the ATG7 gene. Knockout validation is widely regarded as one of the most rigorous methods for confirming antibody specificity because complete genetic disruption of the target should eliminate the corresponding immunoreactive signal. This approach provides researchers with increased confidence that observed staining or protein bands represent authentic ATG7 rather than off-target binding. NSJ Bioreagents supplies this ATG7 Antibody to support studies requiring high-confidence detection of ATG7 across multiple research applications.

ATG7 plays a central role in autophagy by activating the ubiquitin-like proteins ATG12 and ATG8 family members, including LC3, initiating conjugation pathways required for autophagosome formation. Through these activities, ATG7 regulates intracellular protein turnover, organelle quality control, and cellular adaptation to nutrient deprivation and other forms of stress. Because disruption of ATG7 profoundly impairs autophagic flux, researchers routinely examine its expression when investigating autophagy, lysosomal degradation, and cellular homeostasis. ATG7 Antibody is therefore

an important tool for evaluating both basal autophagy and experimentally induced changes in autophagy-related pathways.

Knockout validated antibodies have become increasingly important as expectations for antibody specificity continue to rise throughout the scientific community. Comparison of wild-type and ATG7-deficient cells or tissues enables investigators to verify target specificity under identical experimental conditions while reducing the likelihood of false-positive results. Consequently, ATG7 Antibody is well suited for studies requiring reliable characterization of ATG7 expression in Western blotting, immunohistochemistry, immunofluorescence, flow cytometry, and related immunodetection techniques. This level of validation is particularly valuable when investigating complex biological processes such as autophagy, where accurate target identification is essential for meaningful interpretation of experimental data.

ATG7 Antibody supports high-confidence detection of Autophagy Related Protein 7 in studies of autophagy, intracellular protein degradation, organelle quality control, and cellular stress responses. Knockout validation provides additional assurance of antibody specificity, helping researchers generate reproducible and biologically meaningful data across a wide range of experimental systems.

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

Optimal dilution of the ATG7 Antibody / Knockout Validated Antibody should be determined by the researcher.

Immunogen

A synthetic peptide specific to human ATG7 was used as the immunogen for the ATG7 antibody.

Storage

Store the ATG7 antibody at -20oC.

Alternate Names

Knockout Validated antibody, Autophagy Related Protein 7 antibody, Autophagy Related E1 Enzyme antibody, APG7 antibody, Ubiquitin Like Modifier Activating Enzyme ATG7 antibody, Autophagy Activating Enzyme antibody

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