Product Datasheet

ATG16L1 Antibody - BSA Free
NB110-60928

Unit Size: 0.1 ml

Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.

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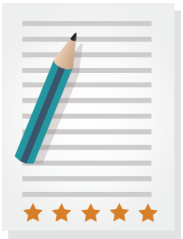
Updated 10/23/2024 v.20.1



NB110-60928

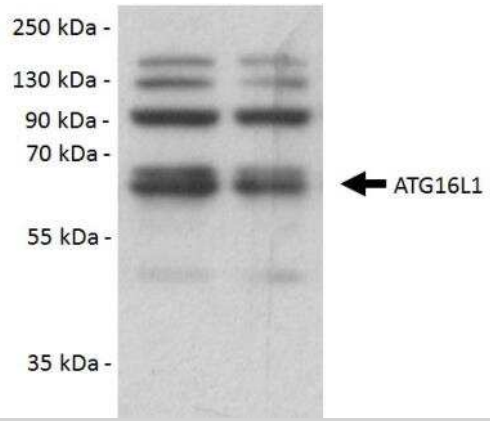
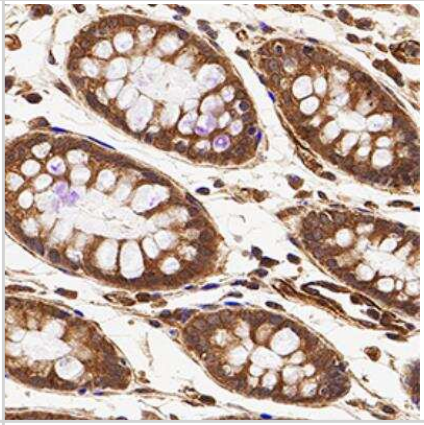
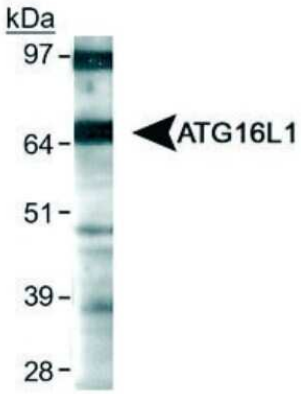
ATG16L1 Antibody - BSA Free

Product Information	
Unit Size	0.1 ml
Concentration	1.0 mg/ml
Storage	Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
Clonality	Polyclonal
Preservative	0.1% Sodium Azide
Isotype	IgG
Purity	Immunogen affinity purified
Buffer	PBS and 30% Glycerol
Target Molecular Weight	68 kDa

Product Description	
Host	Rabbit
Gene ID	55054
Gene Symbol	ATG16L1
Species	Human, Mouse, Rat, Alligator, Bovine, Canine, Primate
Reactivity Notes	Use in Alligator reported in scientific literature (PMID:32061056).
Immunogen	A synthetic peptide within residues 1-100 of human ATG16L1 protein. [Swiss-Prot# Q676U5]

Product Application Details	
Applications	Western Blot, Electron Microscopy, Immunohistochemistry, Immunohistochemistry-Paraffin
Recommended Dilutions	Western Blot 0.5-2 ug/ml, Immunohistochemistry 1:250 - 1:500, Immunohistochemistry-Paraffin reported in scientific literature (PMID 25060858), Electron Microscopy 1:10-1:500. Use reported in scientific literature (PMID 22531915)
Application Notes	In Western blot analysis, a specific band is seen at ~68kDa. The observed molecular weight of the protein may vary from the listed predicted molecular weight due to post translational modifications, post translation cleavages, relative charges, and other experimental factors.

Images

Western Blot: ATG16L1 Antibody [NB110-60928] - Detection of ATG16L1 using NB110-60928 in HCT116 whole cell extracts. Image from verified customer review.	
Immunohistochemistry-Paraffin: ATG16L1 Antibody [NB110-60928] - IHC analysis of formalin fixed paraffin-embedded (FFPE) human colon cancer using ATG16L1 antibody at 1:500 on a Bond Rx autostainer (Leica Biosystems). The assay involved 20 minutes of heat induced antigen retrieval (HIER) using 10mM sodium citrate buffer (pH 6.0) and endogenous peroxidase quenching with peroxide block. The sections were incubated with primary antibody for 30 minutes and Bond Polymer Refine Detection (Leica Biosystems) with DAB was used for signal development followed by counterstaining with hematoxylin. Whole slide scanning and capturing of representative images was performed using Aperio AT2 (Leica Biosystems). Cytoplasmic staining of ATG16L1 was observed. Staining was performed by Histowiz.	
Western Blot: ATG16L1 Antibody [NB110-60928] - Detection of ATG16L1 using NB110-60928 in HeLa whole cell extracts.	

Publications

Falvo S, Latino D, Santillo A et al. Effects of a high-fat diet on rat epididymis Journal of experimental zoology. Part A, Ecological and integrative physiology 2023-04-03 [PMID: 37009779] (WB, Rat)

Bi Y, Yang G, Guo Z et al. Chronic high?salt intake induces cardiomyocyte autophagic vacuolization during left ventricular maladaptive remodeling in spontaneously hypertensive rats Experimental and Therapeutic Medicine 2023-02-16 [PMID: 36911373] (WB, Rat)

Zhang Y, Xu X, Hu M et al SPATA33 is an autophagy mediator for cargo selectivity in germline mitophagy Cell Death Differ 2020-10-22 [PMID: 33087875] (Mouse)

Details:
Citation using the Alexa Fluor 488 version of this antibody.

Chen F, Amgalan D, Kitsis RN et al. ATG16L1 autophagy pathway regulates BAX protein levels and programmed cell death J. Biol. Chem. 2020-08-26 [PMID: 32848017]

Hale A, Merchant M, White M Detection and analysis of autophagy in the American alligator (Alligator mississippiensis) J. Exp. Zool. B Mol. Dev. Evol. 2020-02-15 [PMID: 32061056] (WB, Alligator)

Sun KT, Chen MY, Tu MG et al. MicroRNA-20a regulates autophagy related protein-ATG16L1 in hypoxia-induced osteoclast differentiation. Bone. 2014-12-05 [PMID: 25485521] (WB, Mouse)

Details:
p62/SQSTM1 antibody used for WB on RAW264.7 cells subjected to RANKL and M-CSF mediated osteoclast differentiation as well as hypoxic stress (Fig. 1E)

Tang JY, Hsi E, Huang YC et al. Overexpression of Autophagy-Related 16-Like 1 in Patients with Oral Squamous Cell Carcinoma. Pathol. Oncol. Res. 2014-07-25 [PMID: 25060858] (IHC-P, Human)

Details:
ATG16L1 antibody used for IHC-P (1:250 dilution) on Human Oral Squamous Cell Carcinoma tissue sections - formalin fixation, 4um paraffin sections, heat induced antigen retrieval with 0.1 M citrate buffer pH 6.0 for 10 min, primary incubation for 30 minutes RT followed by detectionwith REAL Envision Detection System - Peroxidase/DAB. Fig 1 shows cytoplasmic staining / immunoreactivity score (IRS).

Curtis S, Jones CJ, Garrod A et al. Identification of Autophagic Vacuoles and Regulators of Autophagy in Villous Trophoblast from Normal Term Pregnancies and in Fetal Growth Restriction J Matern Fetal Neonatal Med 2012-10-08 [PMID: 23039021] (IF/IHC, Human)

Tattoli I, Sorbara MT, Vuckovic D et al. Amino Acid starvation induced by invasive bacterial pathogens triggers an innate host defense program Cell Host Microbe 2012-06-14 [PMID: 22704617] (WB, Human)

Juarez E, Carranza C, Hernandez-Sanchez F, Leon-Contreras JC, Hernandez-Pando R, Escobedo D, Torres M, Sada E. NOD2 enhances the innate response of alveolar macrophages to Mycobacterium tuberculosis in humans. Eur J Immunol;42(4):880-9. 2012-04-01 [PMID: 22531915] (Human)

Plantinga TS, Crisan TO, Oosting M. Crohn's disease-associated ATG16L1 polymorphism modulates pro-inflammatory cytokine responses selectively upon activation of NOD2. Gut. 2011-03-15 [PMID: 21406388]

Procedures

Serum protocol for ATG16L1 Antibody (NB110-60928)

Protocol: Western Blot Protocol for Atg16L1 Antibody (NB110-60928)

Materials
1X PBS
Sample buffer, 2X Laemmli buffer: 4% SDS, 5% 2-mercaptoethanol (BME), 20% glycerol, 0.004% bromophenol blue, 0.125 M Tris HCl, pH 6.8
1X Running Buffer: 25 mM Tris-base, 192 mM glycine, 0.1% SDS. Adjust to pH 8.3
1X Transfer buffer (wet): 25 mM Tris-base, 192 mM glycine, 20% methanol Adjust to pH 8.3
TBS
TBST, TBS and 0.1% Tween
Blocking solution: TBST, 5% non-fat dry milk
rabbit anti-Atg16L1 primary antibody (NB110-60928) in blocking buffer (~2 ug/mL)

Methods

1. Grow cells (e.g. HeLa or Neuro2A) in vitro to semi-confluency (70-75%).
2. Rinse cells with ice-cold 1X PBS and lyse cells with sample buffer.
3. Sonicate and incubate cells for 5 minutes at 95oC.

Tip: Cells are lysed directly in sample buffer.

4. Load 10-40 ug/lane of sample on a 12% polyacrylamide gel (SDS-PAGE).
5. Transfer proteins to a PVDF membrane for 60 minutes at 100V.
Tip: For more information on Western Blotting, see our Western Blot handbook:
6. After transfer, rinse the membrane with dH2O and stain with Ponceau S for 1-2 minutes to confirm efficiency of protein transfer.
7. Rinse the membrane in dH2O to remove excess stain and mark the loaded lanes and molecular weight markers using a pencil.
8. Block the membrane using blocking buffer solution (5% BSA in TBST) for 16 hours at 4oC.
9. Rinse the membrane with TBST for 5 minutes.

10. Dilute the rabbit anti-Atg16L1 primary antibody (NB110-60928) in blocking buffer (~2 ug/mL) and incubate the membrane for 1.5 hours at room temperature.
11. Rinse the membrane with dH2O.
12. Rinse the membrane with TBST, 3 times for 10 minutes each.
13. Incubate the membrane with diluted secondary antibody, according with product's specification, (e.g. anti-rabbit-IgG HRP-conjugated) in blocking buffer for 1 hour at room temperature.

Note: Tween-20 may be added to the blocking or antibody dilution buffer at a final concentration of 0.05-0.2%, provided it does not interfere with antibody-antigen binding.
14. Rinse the membrane with TBST, 3 times for 10 minutes each.
15. Apply the detection reagent of choice (e.g. BioFX Super Plus ECL) in accordance with the manufacturer's instructions.

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Products Related to NB110-60928

NB110-60928PEP	ATG16L1 Antibody Blocking Peptide
HAF008	Goat anti-Rabbit IgG Secondary Antibody [HRP]
NB7160	Goat anti-Rabbit IgG (H+L) Secondary Antibody [HRP]
NBP2-24891	Rabbit IgG Isotype Control

Limitations
This product is for research use only and is not approved for use in humans or in clinical diagnosis. Primary Antibodies are guaranteed for 1 year from date of receipt.

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