

Product Datasheet

Beclin 1 Antibody (4H10)

NBP1-00085

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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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	Monoclonal
Clone	4H10
Preservative	0.05% Sodium Azide
Isotype	IgG1 Kappa
Purity	Protein G purified
Buffer	Tris-Glycine and 0.15M NaCl
Target Molecular Weight	52 kDa
Product Description	
Host	Mouse
Gene ID	8678
Gene Symbol	BECN1
Species	Human, Chicken
Reactivity Notes	Human. Chicken reactivity reported in scientific literature (PMID: 29706614). 99% sequence identity with monkey, 98% identity with mouse and bovine, 97% identity with porcine, rat and horse.
Immunogen	Full length human Beclin 1 protein [Swiss-Prot# Q14457]
Product Application Details	
Applications	Western Blot, Immunohistochemistry, Immunohistochemistry-Paraffin, Immunoprecipitation
Recommended Dilutions	Western Blot 2 ug/ml, Immunohistochemistry 1:50- 1:100, Immunoprecipitation, Immunohistochemistry-Paraffin 1:50- 1:100
Application Notes	This Beclin 1 antibody is useful for Immunohistochemistry paraffin embedded sections and Western Blot, where a band is seen ~52 kDa.. Use in immunoprecipitation reported in scientific literature (PMID 25127057) 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.

Publications

Zhang Y, Jiang Q, Xie S et al. Lead Induced Ototoxicity and Neurotoxicity in Adult Guinea Pig BioMed Research International 2019-01-15 [PMID: 30766882] (WB, Guinea Pig)

Yan Q, Song Y, Zhang L et al. Autophagy activation contributes to lipid accumulation in tubular epithelial cells during kidney fibrosis. Cell Death Discov. 2018-06-27 [PMID: 30062051] (WB, Mouse)

Lin X, Liu X, Ma Y et al. Coherent apoptotic and autophagic activities involved in regression of chicken postovulatory follicles. Aging (Albany NY) 2018-04-29 [PMID: 29706614] (IHC-P, Chicken)

Wei ZB, Yuan YF, Jaouen F et al. SLC35D3 increases autophagic activity in midbrain dopaminergic neurons by enhancing BECN1-ATG14-Plk3C3 complex formation. Autophagy. 2016-05-12 [PMID: 27171858]

Morikawa A, Takeuchi T, Kito Y et al. Expression of beclin-1 in the microenvironment of invasive ductal carcinoma of the breast: correlation with prognosis and the cancer-stromal interaction. PLoS ONE. 2015-05-09 [PMID: 25955408] (WB, IHC-P, Human)

Avena P, Anselmo W, Whitaker-Menezes D et al. Compartment-specific activation of PPARgamma governs breast cancer tumor growth, via metabolic reprogramming and symbiosis. Cell Cycle 2013-05-01 [PMID: 23574724]

Martinez-Outschoorn UE, Trimmer C, Lin Z et al. Autophagy in cancer associated fibroblasts promotes tumor cell survival: Role of hypoxia, HIF1 induction and NFkappaB activation in the tumor stromal microenvironment. Cell Cycle 2010-09-01 [PMID: 20855962]

Mandell MA, Jain A, Arko-Mensah J et al. TRIM Proteins Regulate Autophagy and Can Target Autophagic Substrates by Direct Recognition. Dev. Cell. 2014-08-25 [PMID: 25127057] (IP, WB, Human)

Salem A, Whitaker-Menezes D, Lin Z et al. Two-compartment tumor metabolism: autophagy in the tumor microenvironment and oxidative mitochondrial metabolism (OXPHOS) in cancer cells. Cell Cycle. 2012-01-01 [PMID: 22722266]

Ko YH, Lin Z, Flomenberg N et al. Glutamine fuels a vicious cycle of autophagy in the tumor stroma and oxidative mitochondrial metabolism in epithelial cancer cells: implications for preventing chemotherapy resistance. Cancer Biol Ther. 2011-12-15 [PMID: 22236876] (WB, Human)

Salem AF, Whitaker-Menezes D, Howell A et al. Mitochondrial biogenesis in epithelial cancer cells promotes breast cancer tumor growth and confers autophagy resistance. Cell Cycle 2012-11-15 [PMID: 23070475]

Al-Zoubi M, Salem AF, Martinez-Outschoorn UE et al. Creating a tumor-resistant microenvironment: Cell-mediated delivery of TNFalpha completely prevents breast cancer tumor formation in vivo. Cell Cycle 2013-02-01 [PMID: 23292149] (WB, Human)

More publications at <http://www.novusbio.com/NBP1-00085>

Procedures

Protocol specific for Beclin 1 Antibody (NBP1-00085)

Western Blot Protocol

1. Perform SDS-PAGE (4-12% MOPS) on samples to be analyzed, loading 38 ug of total protein per lane.
2. Transfer proteins to Nitrocellulose according to the instructions provided by the manufacturer of the transfer apparatus.
3. Rinse membrane with dH₂O and then stain the blot using Ponceau S for 1-2 minutes to access the transfer of proteins onto the nitrocellulose membrane. Rinse the blot in water to remove excess stain and mark the lane locations and locations of molecular weight markers using a pencil.
4. Rinse the blot in TBS for approximately 5 minutes.
5. Block the membrane using 5% NFD_M + 1% BSA in TBS + Tween, 1 hour at RT.
6. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
7. Dilute the rabbit anti-Beclin1 primary antibody (NBP1-100085) in blocking buffer and incubate 1 hour at room temperature.
8. Rinse the membrane in dH₂O and then wash the membrane in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each.
9. Apply the diluted mouse-IgG HRP-conjugated secondary antibody in blocking buffer (as per manufacturers instructions) and incubate 1 hour at room temperature.
10. Wash the blot in wash buffer [TBS + 0.1% Tween] 3 times for 10 minutes each (this step can be repeated as required to reduce background).
11. Apply the detection reagent of choice in accordance with the manufacturers instructions (Pierce ECL).

Note: Tween-20 can 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.





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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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