

Datasheet for 600-401-G84**BECLIN1 Antibody****Overview**

Description:	Anti-Beclin1 (RABBIT) Antibody - 600-401-G84
Item No.:	600-401-G84
Size:	100 µg
Applications:	ELISA, IF, IHC, WB
Reactivity:	Human, Mouse, Rat
Host Species:	Rabbit

Product Details

Background: Beclin-1 antibody detects human Beclin-1. Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells. Beclin-1, a coiled-coil Bcl-2-interacting protein homologous to the yeast autophagy gene *apg6*, is a mammalian autophagy gene that can inhibit tumorigenesis and is expressed at reduced levels in human breast carcinoma, suggesting that defects in autophagy proteins may contribute to the development or progression of tumors. Bcl-2 can bind to Beclin-1 and inhibit Beclin-1-dependent autophagy in yeast and mammalian cells, suggesting that Bcl-2 functions as an anti-autophagy protein as well as an anti-apoptotic protein, which helps maintain autophagy at levels that are more compatible with cell survival rather than cell death. Anti-Beclin-1 antibodies are ideal for investigators involved in apoptosis and cancer research.

Synonyms:	GT197, BECLIN 1, BECLIN-1
Host Species:	Rabbit
Clonality:	Polyclonal
Format:	IgG

Target Details

Gene Name:	BECN1
Reactivity:	Human, Mouse, Rat
Immunogen Type:	Conjugated Peptide

Immunogen:	Beclin-1 Antibody was produced from whole rabbit serum prepared by repeated immunizations with a peptide corresponding to an internal region of human Beclin-1. The immunogen is located between 40-90 amino acids of Beclin-1.
Purity/Specificity:	Anti-Beclin-1 Antibody was affinity purified from monospecific antiserum by immunoaffinity purification. A BLAST analysis was used to suggest cross-reactivity with Beclin-1 with Human, Mouse and Rat based on 100% homology with the immunizing sequence. Cross-reactivity with Beclin-1 from Bovine (94%), Pig (88%); other sources has not been determined. Anti-Beclin-1 Antibody can detect human, mouse and rat.
Relevant Links:	• NCBI - NP_001300927.1 • UniProtKB - Q14457 • GeneID - 8678

Application Details

Tested Applications:	ELISA, IF, IHC, WB
Application Note:	Anti-Beclin-1 Antibody is tested for use in ELISA, Western Blot, Immunohistochemistry-P, and Immunofluorescence. Expect a band approximately ~51.8 kDa, observed ~60kDa. Specific conditions for reactivity should be optimized by the end user. Positive control: mouse heart tissue, mouse brain tissue, rat heart tissue.
Assay Dilutions:	All assays should be optimized by the user. Recommended dilutions (if any) may be listed below.
IF:	10-20 µg/mL
IHC:	2-5 µg/mL
WB:	1-2 µg/mL

Formulation

Physical State:	Liquid (sterile filtered)
Concentration:	1 mg/mL by UV absorbance at 280 nm
Buffer:	0.02 M Potassium Phosphate, 0.15 M Sodium Chloride, pH 7.2
Preservative:	0.02% (w/v) Sodium Azide
Stabilizer:	None

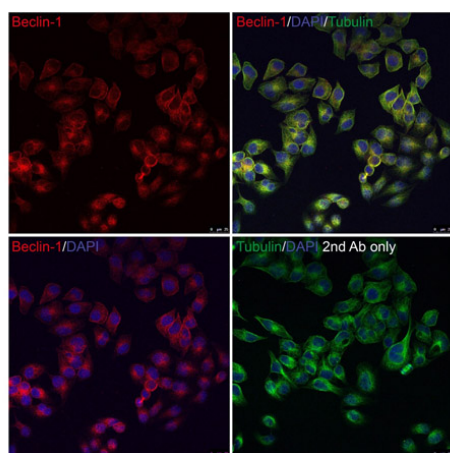
Shipping & Handling

Shipping Condition:	Wet Ice
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Storage Condition: Antibody can be stored at 4°C up to one year. Antibodies should not be exposed to prolonged high temperatures.

Expiration: Expiration date is one (1) year from date of receipt.

Images



Immunofluorescence Microscopy

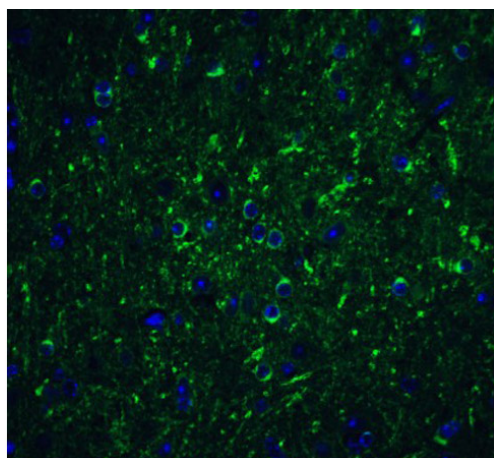
Immunofluorescence of Beclin-1.

Cell: HeLa cells.

Fixation: methanol-fixed.

Primary Antibody: anti-Beclin-1 at 10 µg/mL.

Secondary: goat anti-rabbit IgG secondary antibody at 1:1000 dilution (red) and DAPI staining (blue). Alpha tubulin was stained with anti-alpha tubulin antibody following by goat anti-mouse IgG secondary antibody (green). Images were captured with confocal microscopy.



Immunofluorescence Microscopy

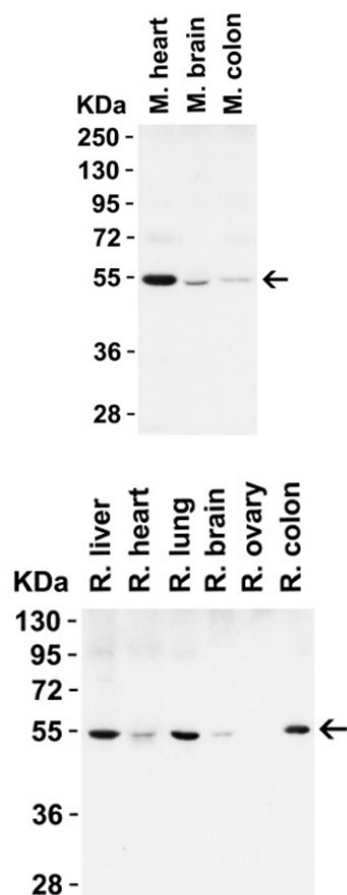
Immunofluorescence of Beclin-1.

Tissue: Mouse Brain Tissue.

Fixation: 4% paraformaldehyde-fixed.

Primary Antibody: Anti-Beclin-1 at 20µg/mL.

Secondary: goat anti-rabbit IgG secondary antibody at 1:500 dilution (green) and DAPI antibody (blue).



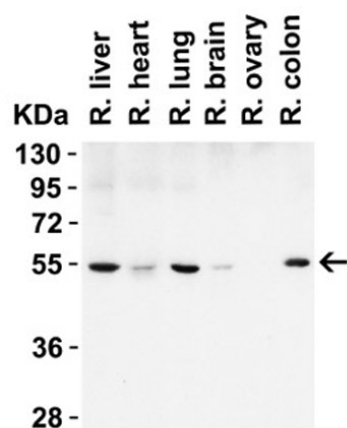
Western Blot

Western Blot of Beclin-1.

Load: 15 μ g of lysate. Lane 1: mouse heart, Lane 2: mouse brain, Lane 3: mouse colon.

Primary antibody: Anti-Beclin-1 at 1 μ g/mL for 1h at RT in 5% NFDM/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



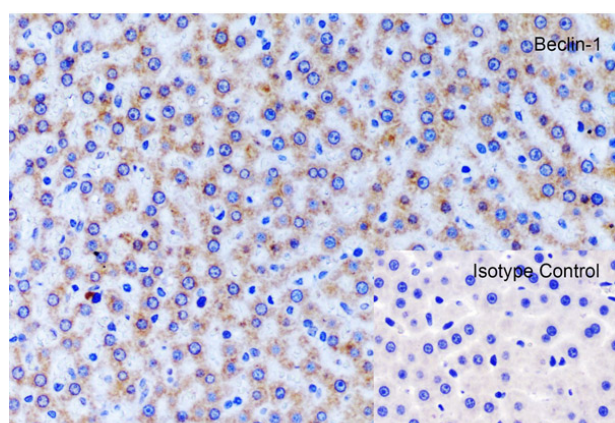
Western Blot

Western Blot of Beclin-1.

Load: 15 μ g of lysate. Lane 1: rat liver, Lane 2: rat heart, Lane 3: rat lung, Lane 4: rat brain, Lane 5: rat ovary, Lane 6: rat colon.

Primary antibody: anti-Beclin-1 at 1 μ g/mL for 1h incubation at RT in 5% NFDM/TBST.

Secondary: Goat Anti-Rabbit IgG HRP conjugate at 1:10000 dilution.



Immunohistochemistry

Immunohistochemistry of Beclin-1.

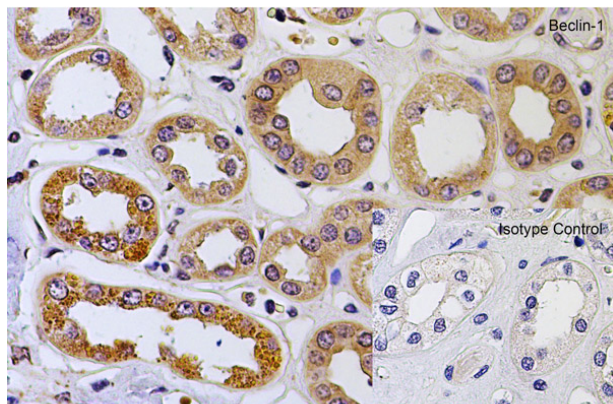
Tissue: Rat Liver Tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-Beclin-1 antibody at 2 μ g/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry of Beclin-1.

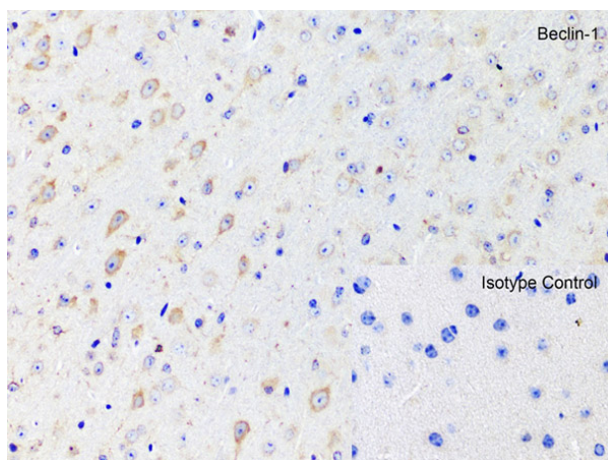
Tissue: human kidney tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-Beclin-1 antibody at 2 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry of Beclin-1.

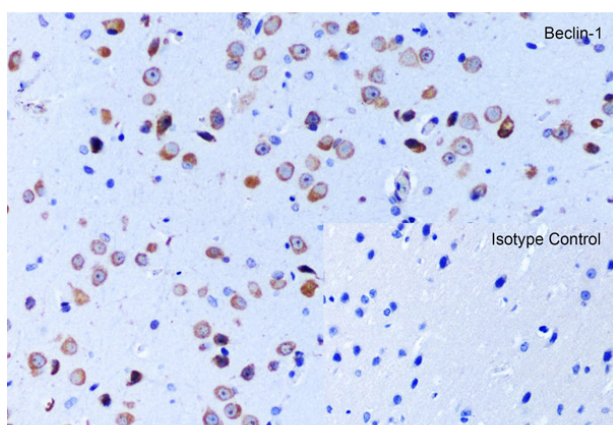
Tissue: Mouse Brain Tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: heat mediation with a citrate buffer (pH6).

Primary Antibody: anti-Beclin-1 antibody at 5 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.



Immunohistochemistry

Immunohistochemistry of Beclin-1.

Tissue: Rat Brain Tissue.

Fixation: paraffin-embedded, formaldehyde and blocked with 10% serum for 1 h at RT.

Antigen retrieval: mediation with a citrate buffer (pH6).

Primary Antibody: anti-Beclin-1 antibody (3613) at 2 µg/ml overnight at 4°C.

Secondary: goat anti-rabbit IgG H&L (HRP) at 1:250. Counter stained with Hematoxylin.

Disclaimer

This product is for research use only and is not intended for therapeutic or diagnostic applications. Please contact a technical service representative for more information. All products of animal origin manufactured by Rockland Immunochemicals are derived from starting materials of North American origin. Collection was performed in United States Department of Agriculture (USDA) inspected facilities and all materials have been inspected and certified to be free of disease and suitable for exportation. All properties listed are typical characteristics and are not specifications. All suggestions and data are offered in good faith but without guarantee as conditions and methods of use of our products are beyond our control. All claims must be made within 30 days following the date of delivery. The prospective user must determine the suitability of our materials before adopting them on a commercial scale. Suggested uses of our products are not recommendations to use our products in violation of any patent or as a license under any patent of Rockland Immunochemicals, Inc. If you require a commercial license to use this material and do not have one, then return this material, unopened to: Rockland Inc., P.O. BOX 5199, Limerick, Pennsylvania, USA.