

## Product datasheet for **TA301470**

### Beclin 1 (BECN1) Rabbit Polyclonal Antibody

#### Product data:

Product Type:	Primary Antibodies
Applications:	FC, ICC/IF, IHC, IP, Simple Western, WB
Recommended Dilution:	Immunohistochemistry-Frozen: 1:400, Flow Cytometry: 2-10 ug/ml, Knockdown Validated, Simple Western: 1:50, Immunohistochemistry: 1:400, Immunocytochemistry/ Immunofluorescence: 1:50-1:200, Immunoprecipitation: 1:80, Immunohistochemistry-Paraffin: 1:400, Western Blot: 1:500-1:2000
Reactivity:	Human, Mouse
Host:	Rabbit
Isotype:	IgG
Clonality:	Polyclonal
Immunogen:	NB 500-249 was raised against an internal synthetic peptide to human Beclin 1, containing residues within 1-100. This sequence has 94% identity with the mouse sequence and 88% identity with the rat sequence.
Formulation:	Tris-citrate/phosphate, pH 7-8 and 0.1% sodium azide
Concentration:	lot specific
Purification:	Immunogen affinity purified
Conjugation:	Unconjugated
Storage:	Store at -20°C as received.
Stability:	Stable for 12 months from date of receipt.
Gene Name:	beclin 1
Database Link:	<a href="#">NP_003757</a> <a href="#">Entrez Gene 56208 Mouse</a> <a href="#">Entrez Gene 8678 Human</a> <a href="#">Q14457</a>



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**Background:**

Beclin 1 is the first identified mammalian gene to mediate autophagy and also has tumor suppressor and antiviral function. Autophagy, a process of bulk protein degradation through an autophagosomic-lysosomal pathway, is important for differentiation, survival during nutrient deprivation, and normal growth control, and is often defective in tumor cells. Beclin 1 was originally isolated in a yeast two hybrid screen to identify Bcl-2-binding partners and maps to a tumor susceptibility locus on human chromosome 17q21 that is frequently monoallelically deleted in human breast, ovarian and prostate cancer. Beclin 1 encodes an evolutionarily conserved 60 kDa coiled coil protein that is expressed in human muscle, epithelial cells and neurons. In gene transfer studies, beclin 1 promotes nutrient deprivation-induced autophagy, inhibits mammary tumorigenesis, and inhibits viral replication. Expression of the Beclin 1 protein is frequently decreased in malignant breast epithelial cells. Based upon these observations, it is speculated that beclin 1 may work through induction of autophagy to negatively regulate tumorigenesis and to control viral infections. Beclin 1 may also play a role in other biological processes in which autophagy is important such as cell differentiation and nutritional stress responses.

**Synonyms:**

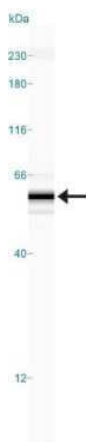
ATG6; beclin1; VPS30

**Protein Families:**

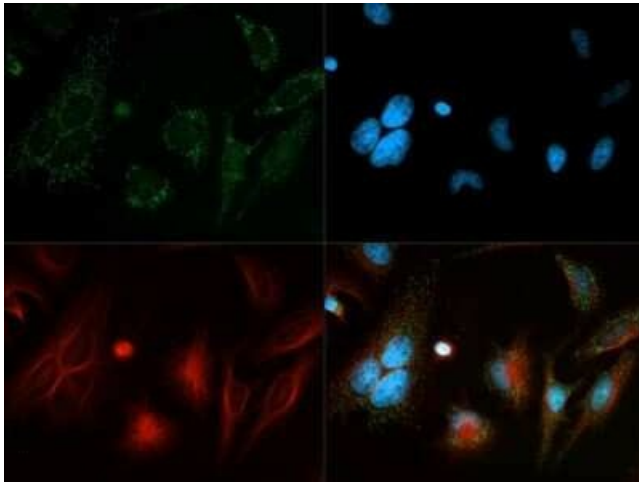
Druggable Genome

**Protein Pathways:**

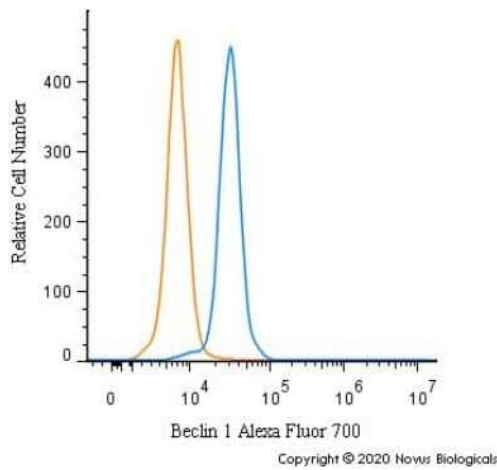
Regulation of autophagy

**Product images:**

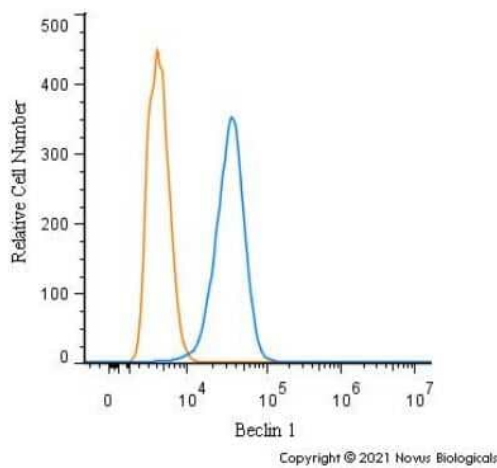
Simple Western: Beclin 1 Antibody - BSA Free TA301470 - Image shows a specific band for Beclin1 in 1.0 mg/mL of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



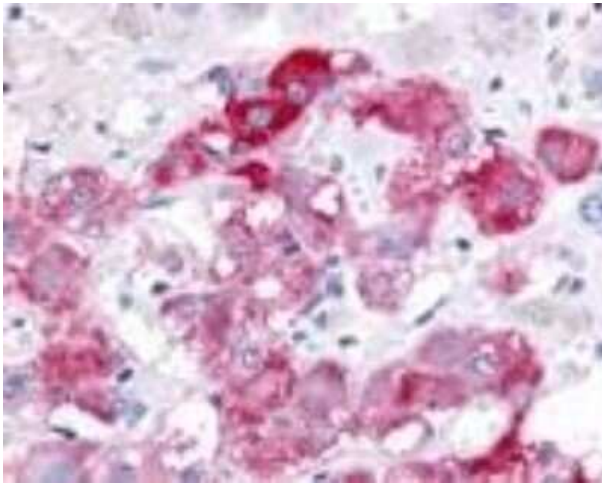
Immunocytochemistry/Immunofluorescence: Beclin 1 Antibody - BSA Free TA301470 - Beclin 1/ATG6 Antibody TA301470 - Beclin 1 antibody was tested in HeLa cells with Dylight 488 (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and Dylight 550 (red).



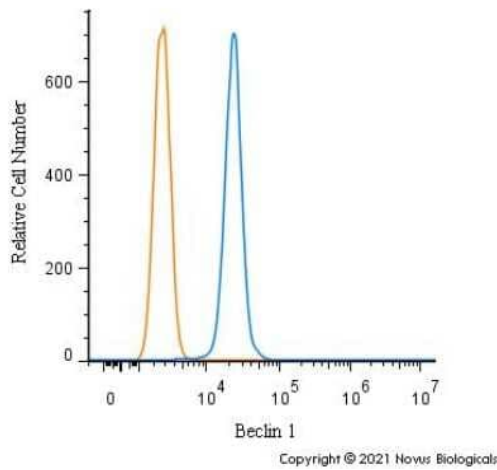
Flow Cytometry: Beclin 1 Antibody - BSA Free TA301470 - An intracellular stain was performed on HeLa cells with TA301470AF700 (blue) and a matched isotype control (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 5 ug/mL for 30 minutes at room temperature. Both antibodies were conjugated to Alexa Fluor 700.



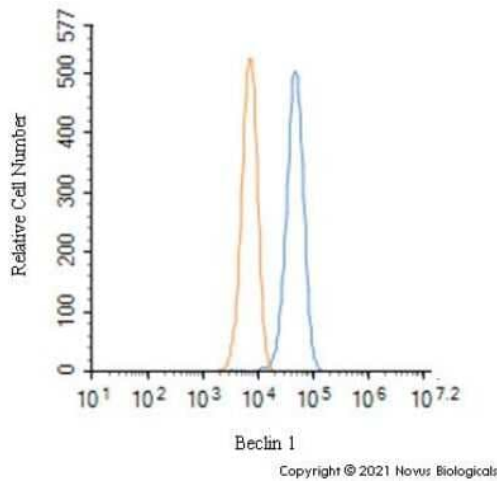
Flow Cytometry: Beclin 1 Antibody - BSA Free TA301470 - An intracellular stain was performed on HepG2 cells with Beclin 1 Antibody TA301470 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



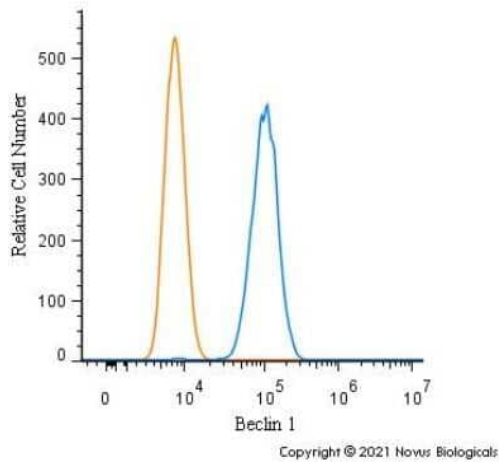
Immunohistochemistry: Beclin 1 Antibody - BSA Free TA301470 - Detection of Beclin 1 (red) in Pheochromocytoma of the Adrenal Medulla 40x.



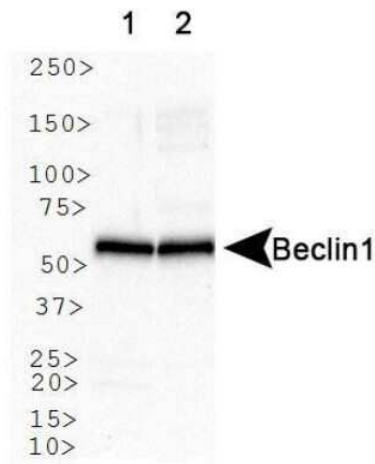
Flow Cytometry: Beclin 1 Antibody - BSA Free TA301470 - An intracellular stain was performed on THP-1 cells with Beclin 1 Antibody TA301470 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Flow Cytometry: Beclin 1 Antibody - BSA Free TA301470 - An intracellular stain was performed on U-87MG cells with Beclin 1 Antibody TA301470 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 2.5 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Flow Cytometry: Beclin 1 Antibody - BSA Free TA301470 - An intracellular stain was performed on Neuro2a cells with Beclin 1 Antibody TA301470 (blue) and a matched isotype control NBP2-24891 (orange). Cells were fixed with 4% PFA and then permeabilized with 0.1% saponin. Cells were incubated in an antibody dilution of 1.0 ug/mL for 30 minutes at room temperature, followed by Rabbit IgG (H+L) Cross-Adsorbed Secondary Antibody, Dylight 550 (SA5-10033, Thermo Fisher).



Western Blot: Beclin 1 Antibody - BSA Free TA301470 - Analysis of Belclin1. Lane 1: human brain. Lane 2: mouse brain.