

Product datasheet for **TA336561**

Beclin 1 (BECN1) Rabbit Polyclonal Antibody

Product data:

Product Type:	Primary Antibodies
Applications:	ICC/IF, IHC, Simple Western, WB
Recommended Dilution:	Immunocytochemistry/ Immunofluorescence: 1:50, Knockdown Validated, Simple Western: 1:12.5, Immunohistochemistry: 1:50 - 1:400, Immunohistochemistry-Paraffin: 1:50 - 1:400, Western Blot: 1:1000
Reactivity:	Human, Mouse, Canine, Porcine, Primate
Host:	Rabbit
Clonality:	Polyclonal
Immunogen:	Synthetic peptide made to an internal portion of human Beclin 1 (within residues 150-300). [Swiss-Prot# Q14457]
Formulation:	PBS, 0.02% Sodium Azide. Store at 4C short term. Aliquot and store at -20C long term. Avoid freeze-thaw cycles.
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.
Predicted Protein Size:	51 kDa
Gene Name:	beclin 1
Database Link:	NP_003757 Entrez Gene 56208 Mouse Entrez Gene 8678 Human Q14457



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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

Note:

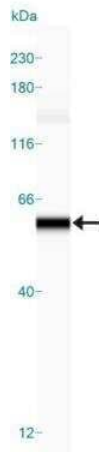
This Beclin 1 antibody is useful for Immunohistochemistry paraffin sections, Immunocytochemistry/Immunofluorescence, and Western blot where a band is seen ~51 kDa. Immunoprecipitation was reported in scientific literature.

Protein Families:

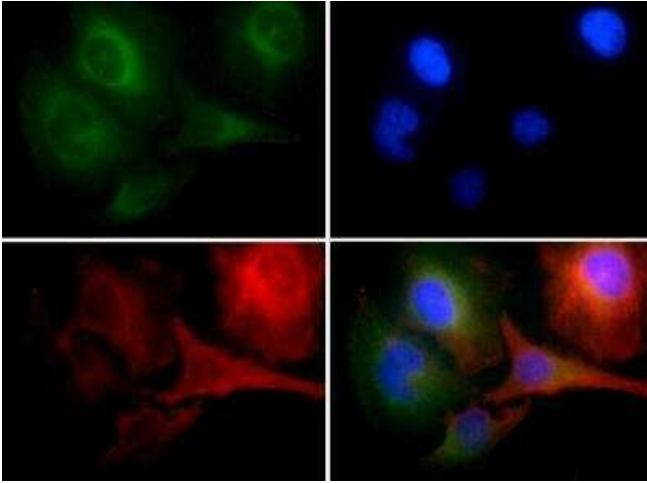
Druggable Genome

Protein Pathways:

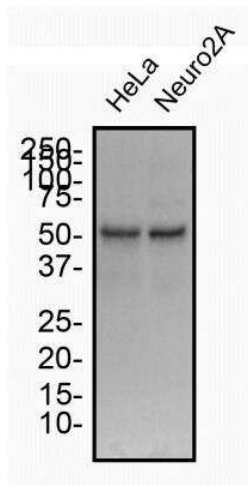
Regulation of autophagy

Product images:

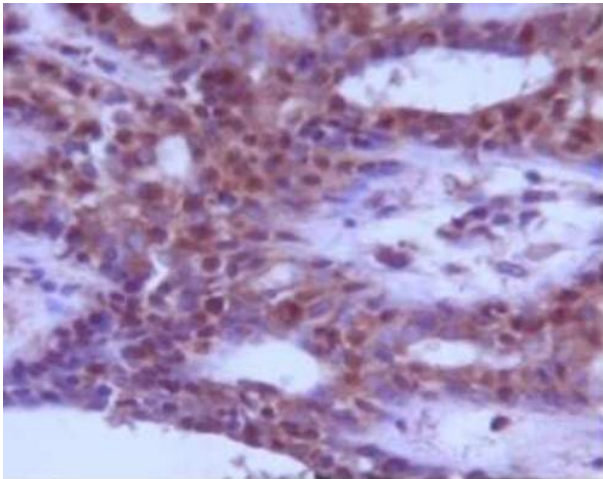
Simple Western: Beclin 1 Antibody TA336561 - Lane view shows a specific band for Beclin in 1.0 mg/ml of HeLa lysate. This experiment was performed under reducing conditions using the 12-230 kDa separation system.



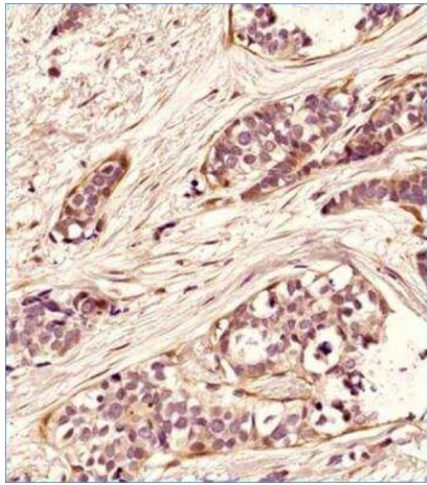
Immunocytochemistry/Immunofluorescence: Beclin 1 Antibody TA336561 - Beclin 1/ATG6 Antibody TA336561 - Beclin1 antibody was tested in HeLa cells with FITC (green). Nuclei and alpha-tubulin were counterstained with DAPI (blue) and DyLight 550 (red).



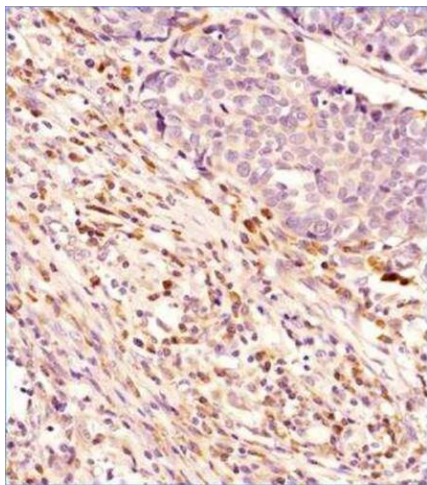
Western Blot: Beclin 1 Antibody TA336561 - Total protein from human HeLa and mouse Neuro2A cells was separated on a 12% gel by SDS-PAGE, transferred to PVDF membrane and blocked in 5% non-fat milk in TBST. The membrane was probed with 2.0 ug/ml anti-Beclin-1 in blocking buffer and detected with an anti-rabbit HRP secondary antibody using chemiluminescence.



Immunohistochemistry: Beclin 1/ATG6 Antibody TA336561 - Staining of normal breast tissue.



Immunohistochemistry-Paraffin: Beclin 1 Antibody TA336561 - Analysis of a FFPE tissue section of human breast cancer using Beclin 1 antibody (Lot F4) at 1:300 dilution. The primary antibody bound to Beclin 1 antigen in the tissue section was detected using a HRP labeled secondary antibody and DAB reagent. Nuclei of the cells were counterstained with hematoxylin. Cytoplasmic staining can be seen in the cancer as well as the stromal cells. The signal was strongest in a subset of stromal cells which appears to be the cancer associated fibroblasts.



Immunohistochemistry-Paraffin: Beclin 1 Antibody TA336561 - Analysis of a FFPE tissue section of human breast cancer using Beclin 1 antibody (Lot 71917) at 1:300 dilution. The primary antibody bound to Beclin 1 antigen in the tissue section was detected using a HRP labeled secondary antibody and DAB reagent. Nuclei of the cells were counterstained with hematoxylin. Cytoplasmic staining can be seen in the cancer as well as the stromal cells. The signal was strongest in a subset of stromal cells which appears to be the cancer associated fibroblasts.