

Basic Information

Product Name	Anti-Beclin 1/BECN1 Antibody (Clone#2D12A3)	
Gene Name	BECN1	
Source	Mouse	
Clonality	Monoclonal	
Isotype	IgG1	
Species Reactivity	human, mouse, rat	
Tested Application	WB, IHC, ICC/IF, FCM	
Contents	500 ug/ml antibody with PBS, 0.02% NaN ₃ , 1 mg/ml BSA and 50% glycerol.	
Immunogen	E.coli-derived human Beclin 1 recombinant protein (Position: M1-S354). Human Beclin 1 shares 97% amino acid (aa) sequence identity with both mouse and rat Beclin 1.	
Concentration	500 ug/ml	
Purification	protein G purified.	
Observed MW	52-60 kDa	
Dilution Ratios	Western blot (WB): 1:500-2000 Immunohistochemistry (IHC): 1:50-400 Immunocytochemistry/Immunofluorescence (ICC/IF): 1:50-400 Flow Cytometry (Fixed): 1:50-200 (Boiling the paraffin sections in 10mM citrate buffer, pH6.0, or PH8.0 EDTA repair liquid for 20 mins is required for the staining of formalin/paraffin sections.) Optimal working dilutions must be determined by end user.	

Storage

12 months from date of receipt, -20°C as supplied. 6 months 2 to 8°C after reconstitution. Avoid repeated freezing and thawing.

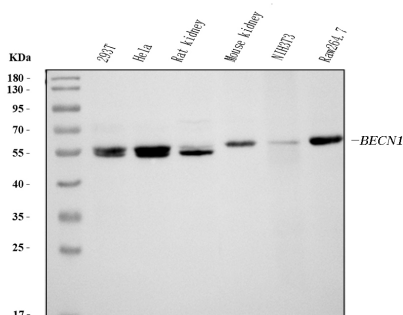
Background Information

Beclin-1, also known as ATG6 or VPS30 is a protein that in humans is encoded by the BECN1 gene. Beclin-1 and its binding partner class III phosphoinositide 3-kinase (PI3K), also named Vps34, are required for the initiation of the formation of the autophagosome in autophagy. This gene participates in the regulation of autophagy and has an important role in development, tumorigenesis, and neurodegeneration. Schizophrenia is associated with low levels of Beclin-1 in the hippocampus of the affected which causes diminished autophagy which in turn results in increased neuronal cell death. It has been found that beclin-1 can promote autophagy in autophagy-defective yeast with a targeted disruption of apg6/vps30, and in human MCF7 breast carcinoma cells.

Reference

Anti-Beclin 1/BECN1 Antibody (Clone#2D12A3)被引用在12文献中。

Selected Validation Data



Western blot analysis of Beclin 1/BECN1 using anti-Beclin 1/BECN1 antibody (M00327-2). The sample well of each lane was loaded with 30 ug of sample under reducing conditions.

Lane 1: 293T whole cell lysates,

Lane 2: HELA whole cell lysates,

Lane 3: rat kidney tissue lysates,

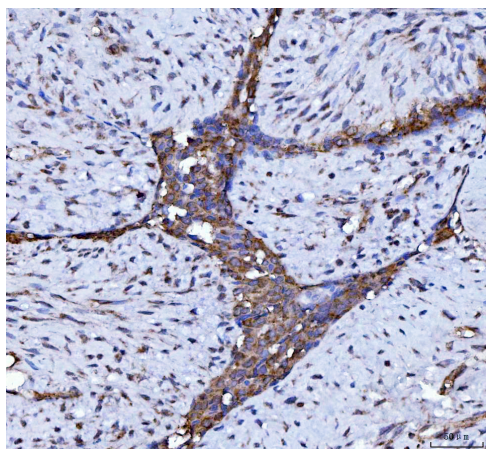
Lane 4: mouse kidney tissue lysates,

Lane 5: NIH/3T3 whole cell lysates,

Lane 6: RAW264.7 whole cell lysates.

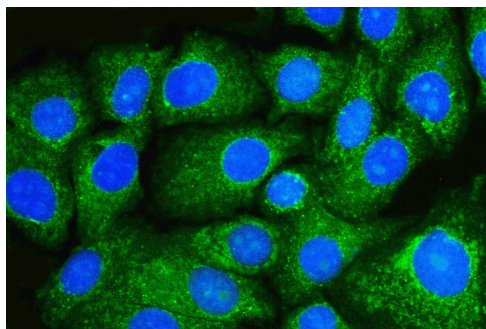
After electrophoresis, proteins were transferred to a membrane.

Then the membrane was incubated with mouse anti-Beclin 1/BECN1 antigen affinity purified monoclonal antibody (M00327-2) at a dilution of 1:1000 and probed with a goat anti-mouse IgG-HRP secondary antibody (Catalog # BA1050). The signal is developed using ECL Plus Western Blotting Substrate (Catalog # AR1197). A specific band was detected for Beclin 1/BECN1 at approximately 52-60 kDa. The expected band size for Beclin 1/BECN1 is at 52 kDa.



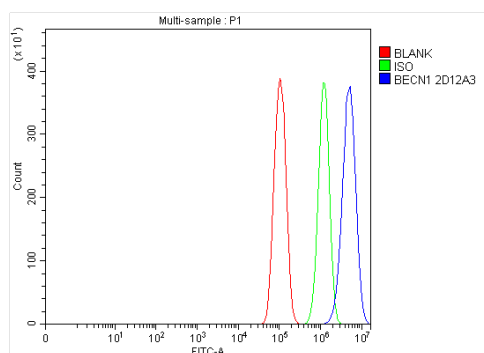
IHC analysis of Beclin 1/BECN1 using anti-Beclin 1/BECN1 antibody (M00327-2).

Beclin 1/BECN1 was detected in a paraffin-embedded section of human breast cancer tissue. The tissue section was incubated with mouse anti-Beclin 1/BECN1 Antibody (M00327-2) at a dilution of 1:200 and developed using HRP Conjugated mouse IgG Super Vision Assay Kit (Catalog # SV0001) with DAB (Catalog # AR1027) as the chromogen.



IF analysis of Beclin 1/BECN1 using anti-Beclin 1/BECN1 antibody (M00327-2).

Beclin 1/BECN1 was detected in an immunocytochemical section of HepG2 cells. The section was incubated with mouse anti-Beclin 1/BECN1 Antibody (M00327-2) at a dilution of 1:100. DyLight488-conjugated Anti-mouse IgG Secondary Antibody (green)(Catalog#BA1126) was used as secondary antibody. The section was counterstained with DAPI (Catalog # AR1176) (Blue).



Flow Cytometry analysis of PC-3 cells using anti-Beclin 1/BECN1 antibody (M00327-2).

Overlay histogram showing PC-3 cells stained with M00327-2 (Blue line). To facilitate intracellular staining, cells were fixed with 4% paraformaldehyde and permeabilized with permeabilization buffer. The cells were blocked with 10% normal goat serum. And then incubated with mouse anti-Beclin 1/BECN1 Antibody (M00327-2) at 1:100 dilution for 30 min at 20°C. DyLight®488 conjugated goat anti-mouse IgG (BA1126) was used as secondary antibody at 1:100 dilution for 30 minutes at 20°C. Isotype control antibody (Green line) was mouse IgG at 1:100 dilution used under the same conditions. Unlabelled sample without incubation with primary antibody and secondary antibody (Red line) was used as a blank control.