

Beclin 1 Antibody (Ascites)
Mouse Monoclonal Antibody (Mab)
Catalog # AM1818a

Specification

Beclin 1 Antibody (Ascites) - Product Information

Application	IF, WB, IHC-P,E
Primary Accession	Q14457
Reactivity	Human
Host	Mouse
Clonality	Monoclonal
Isotype	IgG3λ

Beclin 1 Antibody (Ascites) - Additional Information

Gene ID 8678

Other Names

Beclin-1, Coiled-coil myosin-like BCL2-interacting protein, Protein GT197, BECN1, GT197

Target/Specificity

This Beclin 1 antibody was raised using purified His-tagged recombinant full length human Autophagy BECN1.

Dilution

IF~~1:100

WB~~1:50~2000

IHC-P~~1:50~1:200

Format

Mouse monoclonal antibody supplied in crude ascites with 0.09% (W/V) sodium azide.

Storage

Maintain refrigerated at 2-8°C for up to 2 weeks. For long term storage store at -20°C in small aliquots to prevent freeze-thaw cycles.

Precautions

Beclin 1 Antibody (Ascites) is for research use only and not for use in diagnostic or therapeutic procedures.

Beclin 1 Antibody (Ascites) - Protein Information

Name BECN1

Synonyms GT197

Function Plays a central role in autophagy (PubMed:[18570871](#), PubMed:[21358617](#), PubMed:[23184933](#), PubMed:[23974797](#), PubMed:[25484083](#), PubMed:[28445460](#),

PubMed:[37776275](#)). Acts as a core subunit of the PI3K complex that mediates formation of phosphatidylinositol 3-phosphate; different complex forms are believed to play a role in multiple membrane trafficking pathways: PI3KC3-C1 is involved in initiation of autophagosomes and PI3KC3-C2 in maturation of autophagosomes and endocytosis. Involved in regulation of degradative endocytic trafficking and required for the abscission step in cytokinesis, probably in the context of PI3KC3-C2 (PubMed:[20208530](#), PubMed:[20643123](#), PubMed:[23974797](#), PubMed:[26783301](#)). Essential for the formation of PI3KC3-C2 but not PI3KC3-C1 PI3K complex forms. Involved in endocytosis (PubMed:[25275521](#)). May play a role in antiviral host defense.

Cellular Location

Cytoplasm. Golgi apparatus, trans-Golgi network membrane; Peripheral membrane protein. Endosome membrane; Peripheral membrane protein. Endoplasmic reticulum membrane; Peripheral membrane protein. Mitochondrion membrane; Peripheral membrane protein. Endosome {ECO:0000250|UniProtKB:O88597} Cytoplasmic vesicle, autophagosome. Note=Interaction with ATG14 promotes translocation to autophagosomes. Expressed in dendrites and cell bodies of cerebellar Purkinje cells (By similarity) {ECO:0000250|UniProtKB:O88597, ECO:0000269|PubMed:19050071} [Beclin-1-C 37 kDa]: Mitochondrion {ECO:0000250|UniProtKB:O88597}

Tissue Location

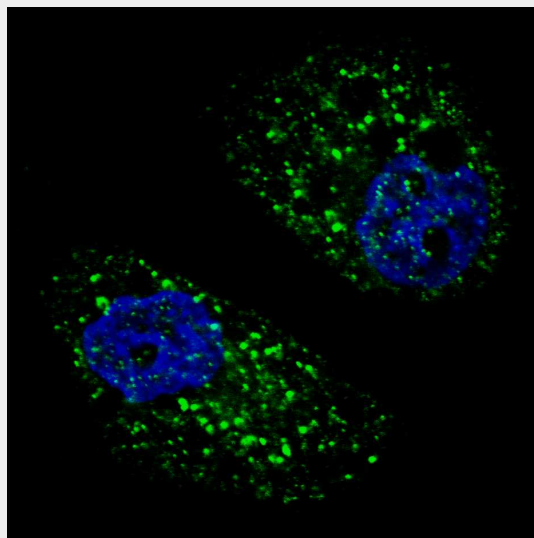
Ubiquitous.

Beclin 1 Antibody (Ascites) - Protocols

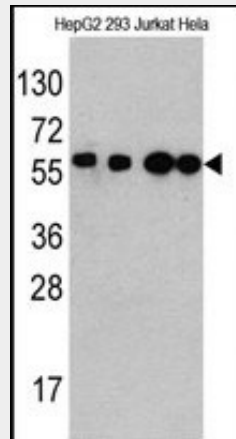
Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

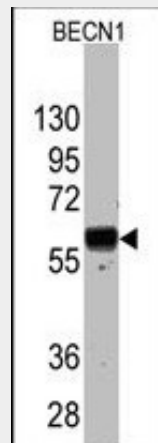
Beclin 1 Antibody (Ascites) - Images



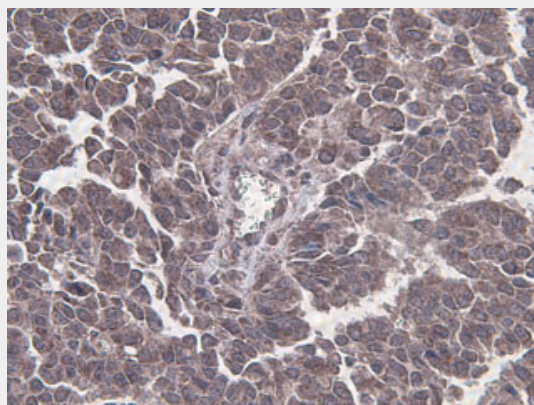
Fluorescent image of U251 cells stained with AM1818a Beclin1 antibody. U251 cells were treated with Chloroquine (50 μ M, 16h), then fixed with 4% PFA (20 min), permeabilized with Triton X-100 (0.2%, 30 min). Cells were then incubated with AM1818a Beclin1 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-mouse antibody (green) was used (1:1000, 1h). Nuclei were counterstained with Hoechst 33342 (blue) (10 μ g/ml, 5 min). Beclin1 immunoreactivity is localized to autophagic vacuoles in the cytoplasm of U251 cells.



Western blot analysis of anti-BECN1 Mab (Cat. #AM1818a) in HepG2, 293, Jurkat and HeLa cell line lysates (35 μ g/lane). BECN1 (arrow) was detected using the Mab ascites (1:2000 dilution).



Western blot analysis of anti-BECN1 Mab (Cat. #AM1818a) in recombinant BECN1 protein. BECN1 (arrow) was detected using the ascites Mab (1:2000 dilution).



Breast CA section stained with Autophagy Beclin 1 Antibody (Cat. # AM1818a) at a 1:50 dilution.

Data courtesy of Dr. Anita Thyagarajan, Cancer Research Laboratory, Methodist Research Institute, Indianapolis, Indiana.

Beclin 1 Antibody (Ascites) - Background

Beclin-1 participates in the regulation of autophagy and has an important role in development, tumorigenesis, and neurodegeneration (Zhong et al., 2009 [PubMed 19270693]).

Beclin 1 Antibody (Ascites) - References

References for protein:

1. Age at onset in Huntington's disease is modified by the autophagy pathway: implication of the V471A polymorphism in Atg7. Metzger S, et al. Hum Genet, 2010 Oct. PMID 20697744.
2. Interaction of Beclin 1 with survivin regulates sensitivity of human glioma cells to TRAIL-induced apoptosis. Niu TK, et al. FEBS Lett, 2010 Aug 20. PMID 20638385.
3. Regulation of amyloid precursor protein processing by the Beclin 1 complex. Jaeger PA, et al. PLoS One, 2010 Jun 15. PMID 20559548.
4. Genetic and epigenetic silencing of the beclin 1 gene in sporadic breast tumors. Li Z, et al. BMC Cancer, 2010 Mar 16. PMID 20230646.
5. Over-expression of the Beclin1 gene upregulates chemosensitivity to anti-cancer drugs by enhancing therapy-induced apoptosis in cervix squamous carcinoma CaSki cells. Sun Y, et al. Cancer Lett, 2010 Aug 28. PMID 20207475.

References for U251 cell line:

1. Westermark B.; Pontén J.; Hugosson R. (1973). "Determinants for the establishment of permanent tissue culture lines from human gliomas". Acta Pathol Microbiol Scand A. 81:791-805. [PMID: 4359449].
2. Pontén, J., Westermark B. (1978). "Properties of Human Malignant Glioma Cells in Vitro". Medical Biology 56: 184-193. [PMID: 359950].
3. Geng Y.; Kohli L.; Klocke B.J.; Roth K.A. (2010). "Chloroquine-induced autophagic vacuole accumulation and cell death in glioma cells is p53 independent". Neuro Oncol. 12(5): 473-481. [PMID: 20406898].

Beclin 1 Antibody (Ascites) - Citations

- [The interaction of Atg4B and Bcl-2 plays an important role in Cd-induced crosstalk between apoptosis and autophagy through disassociation of Bcl-2-Beclin1 in A549 cells.](#)
- [Mir-30d suppresses cell proliferation of colon cancer cells by inhibiting cell autophagy and promoting cell apoptosis.](#)
- [Echovirus 7 entry into polarized caco-2 intestinal epithelial cells involves core components of the autophagy machinery.](#)
- [Selective subversion of autophagy complexes facilitates completion of the Brucella intracellular cycle.](#)
- [Activation of autophagy in mesenchymal stem cells provides tumor stromal support.](#)
- [Immunohistochemical evidence for macroautophagy in neurones and endothelial cells in Alzheimer's disease.](#)