

Beclin 1 Antibody
Affinity Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP13795a**Specification**

Beclin 1 Antibody - Product Information

Application	IF, WB,E
Primary Accession	Q14457
Other Accession	Q6GP52 , Q91XJ1 , Q4A1L5 , O88597 , Q5ZKS6 , Q4A1L4 , NP_003757.1
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Pig, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG
Calculated MW	51896
Antigen Region	100-123

Beclin 1 Antibody - 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 is generated from rabbits immunized with a KLH conjugated synthetic peptide between 100-123 amino acids from human Beclin 1.

Dilution

IF~~1:100

WB~~1:2000

Format

Purified polyclonal antibody supplied in PBS with 0.09% (W/V) sodium azide. This antibody is purified through a protein A column, followed by peptide affinity purification.

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 is for research use only and not for use in diagnostic or therapeutic procedures.

Beclin 1 Antibody - 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.

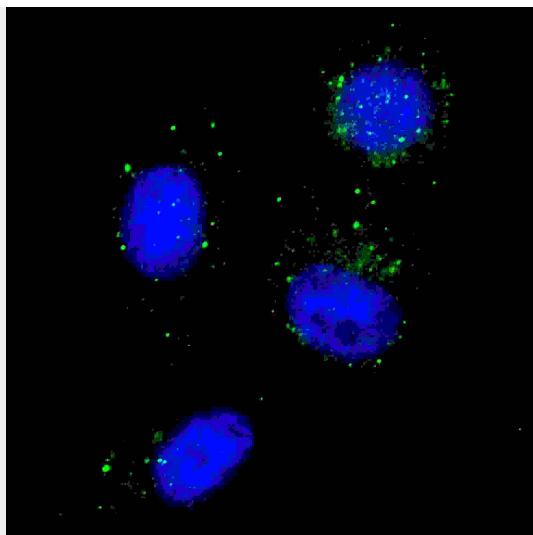
Beclin 1 Antibody - Protocols

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

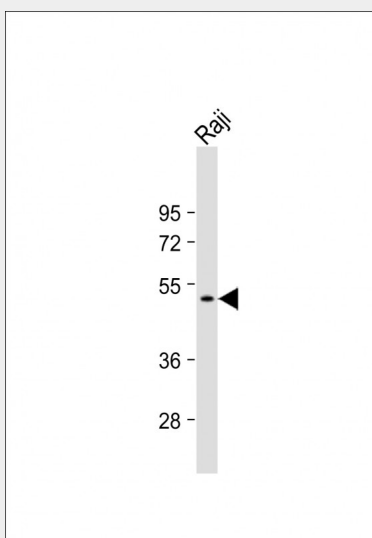
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Beclin 1 Antibody - Images





Fluorescent image of U251 cells stained with Beclin 1 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 AP13795a Beclin 1 primary antibody (1:100, 2 h at room temperature). For secondary antibody, Alexa Fluor® 488 conjugated donkey anti-rabbit 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.



Anti-Beclin 1 Antibody at 1:2000 dilution + Raji whole cell lysate Lysates/proteins at 20 μ g per lane. Secondary Goat Anti-Rabbit IgG, (H+L), Peroxidase conjugated at 1/10000 dilution. Predicted band size : 52 kDa Blocking/Dilution buffer: 5% NFDm/TBST.

Beclin 1 Antibody - 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]).[supplied by OMIM].

Beclin 1 Antibody - References

References for protein:

- 1.Koukourakis, M.I., et al. Br. J. Cancer 103(8):1209-1214(2010)
- 2.Jaeger, P.A., et al. Arch. Neurol. 67(10):1181-1184(2010)

3. Metzger, S., et al. Hum. Genet. 128(4):453-459(2010)
4. Oberstein, A., et al. J. Biol. Chem. 282(17):13123-13132(2007)
5. Furuya, N., et al. Autophagy 1(1):46-52(2005)

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].