

Anti-Beclin 1 Picoband Antibody
Catalog # ABO11790**Specification**

Anti-Beclin 1 Picoband Antibody - Product Information

Application	IHC
Primary Accession	Q14457
Host	Rabbit
Reactivity	Human, Mouse, Rat
Clonality	Polyclonal
Format	Lyophilized

Description

Rabbit IgG polyclonal antibody for Beclin-1(BECN1) detection. Tested with WB, IHC-P in Human;Mouse;Rat.

Reconstitution

Add 0.2ml of distilled water will yield a concentration of 500ug/ml.

Anti-Beclin 1 Picoband Antibody - Additional Information

Gene ID 8678

Other Names

Beclin-1, Coiled-coil myosin-like BCL2-interacting protein, Protein GT197, Beclin-1-C 35 kDa, Beclin-1-C 37 kDa, BECN1, GT197

Calculated MW

51896 MW KDa

Application Details

Immunohistochemistry(Paraffin-embedded Section), 0.5-1 µg/ml, Mouse, Rat, Human, By Heat
Western blot, 0.1-0.5 µg/ml, Human

Subcellular Localization

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 . Cytoplasmic vesicle, autophagosome . Interaction with ATG14 promotes translocation to autophagosomes. Expressed in dendrites and cell bodies of cerebellar Purkinje cells (By similarity). .

Tissue Specificity

Ubiquitous.

Protein Name

Beclin-1

Contents

Each vial contains 5mg BSA, 0.9mg NaCl, 0.2mg Na₂HPO₄, 0.05mg NaN₃.

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.

Purification

Immunogen affinity purified.

Cross Reactivity

No cross reactivity with other proteins

Storage

At -20°C for one year. After reconstitution, at 4°C for one month. It can also be aliquotted and stored frozen at -20°C for a longer time. Avoid repeated freezing and thawing.

Anti-Beclin 1 Picoband Antibody - Protein Information

Name BECN1

Synonyms GT197

Function

Plays a central role in autophagy (PubMed: 18570871, PubMed: 21358617, PubMed: 23184933, PubMed: 23974797, PubMed: 28445460, PubMed: 25484083, 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: 20643123, PubMed: 20208530, PubMed: 23974797, PubMed: 26783301). Essential for the formation of PI3KC3-C2 but not PI3KC3-C1 PI3K complex forms. Involved in endocytosis (PubMed: 25275521). Protects against infection by a neurovirulent strain of Sindbis virus (PubMed: 9765397). 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}

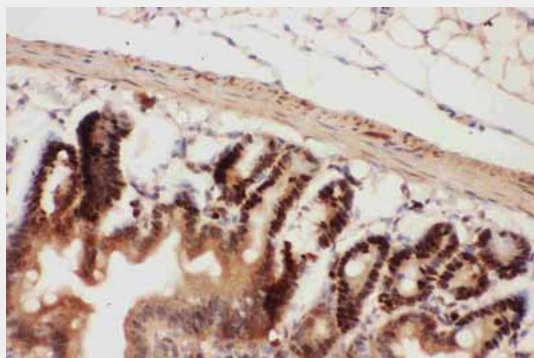
Tissue Location

Ubiquitous.

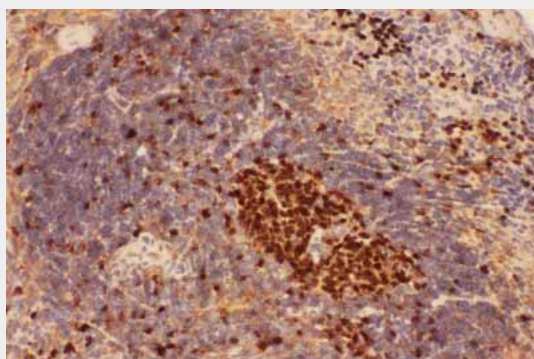
Anti-Beclin 1 Picoband Antibody - Protocols

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

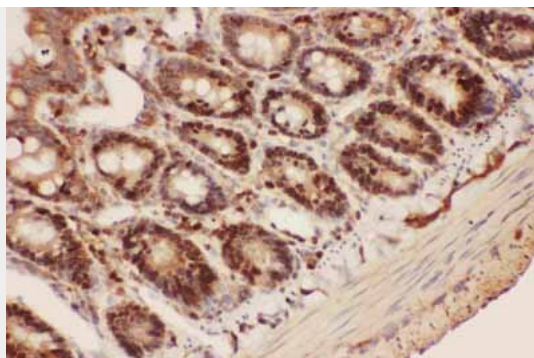
- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

Anti-Beclin 1 Picoband Antibody - Images

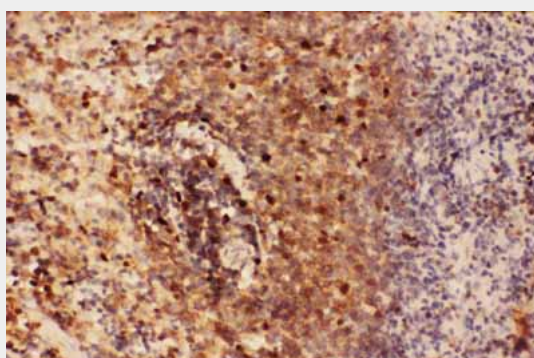
Anti-Beclin 1 Picoband antibody, ABO11790-1.JPGIHC(P): Mouse Intestine Tissue



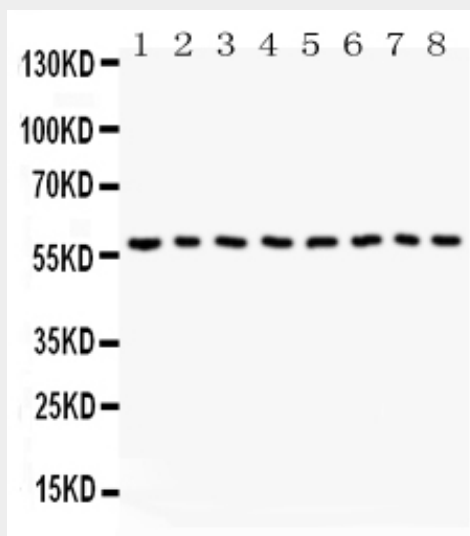
Anti-Beclin 1 Picoband antibody, ABO11790-2.JPGIHC(P): Mouse Spleen Tissue



Anti-Beclin 1 Picoband antibody, ABO11790-3.JPGIHC(P): Rat Intestine Tissue



Anti-Beclin 1 Picoband antibody, ABO11790-4.JPGIHC(P): Rat Spleen Tissue



Anti-Beclin 1 Picoband antibody, ABO11790-5.jpgAll lanes: Anti-Beclin-1 (ABO11790) at 0.5ug/ml
Lane 1: Colo320 Whole Cell Lysate at 40ug
Lane 2: HepG2 Whole Cell Lysate at 40ug
Lane 3: PANC Whole Cell Lysate at 40ug
Lane 4: A431 Whole Cell Lysate at 40ug
Lane 5: Smmc Whole Cell Lysate at 40ug
Lane 6: Jurkat Whole Cell Lysate at 40ug
Lane 7: SW620 Whole Cell Lysate at 40ug
Lane 8: U87 Whole Cell Lysate at 40ug
Predicted bind size: 52KD
Observed bind size: 60KD

Anti-Beclin 1 Picoband Antibody - Background

Beclin-1, also known as 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.