

**Phospho-Belcin 1 Antibody**  
**Affinity Purified Rabbit Polyclonal Antibody (Pab)**  
**Catalog # AP3765a**

**Specification**

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**Phospho-Belcin 1 Antibody - Product Information**

Application	DB,E
Primary Accession	<a href="#">O14457</a>
Other Accession	<a href="#">O6GP52</a> , <a href="#">O91XJ1</a> , <a href="#">O4A1L5</a> , <a href="#">O88597</a> , <a href="#">O5ZKS6</a> , <a href="#">O4A1L4</a> , <a href="#">NP_003757.1</a>
Reactivity	Human
Predicted	Bovine, Chicken, Mouse, Pig, Rat, Xenopus
Host	Rabbit
Clonality	Polyclonal
Isotype	Rabbit IgG

**Phospho-Belcin 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 Belcin 1

**Dilution**

DB~~1:500

**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**

Phospho-Belcin 1 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Phospho-Belcin 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

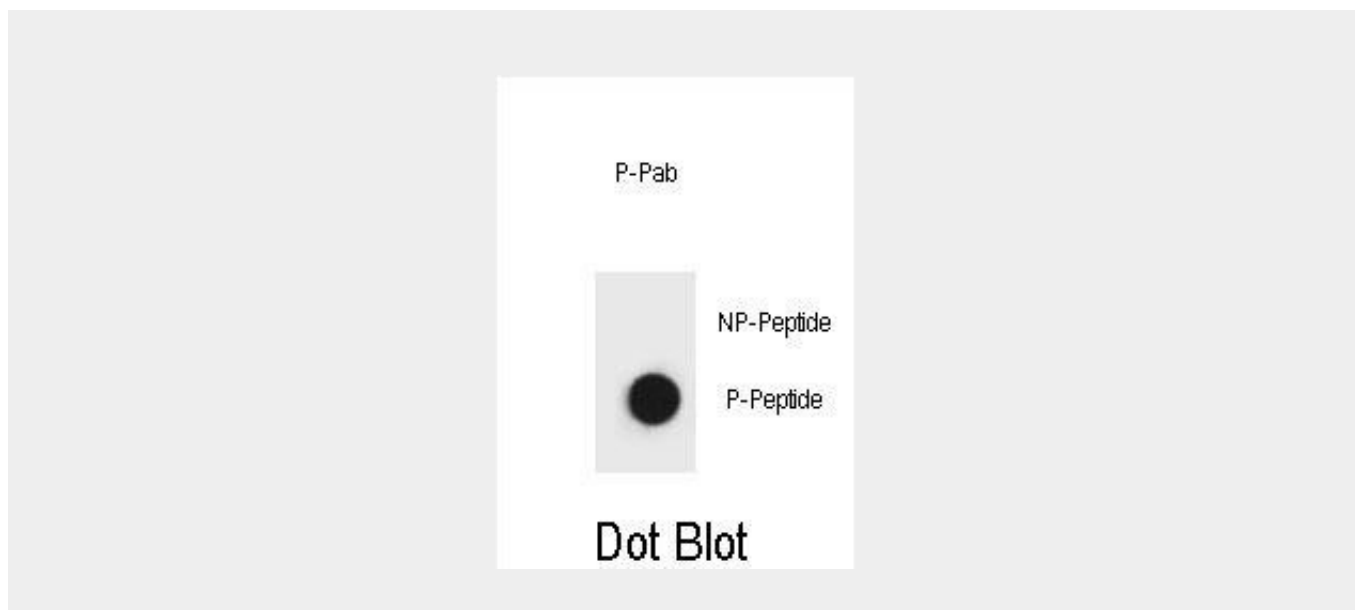
Ubiquitous.

#### Phospho-Belcin 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](#)

#### Phospho-Belcin 1 Antibody - Images



Dot blot analysis of Beclin 1 phospho antibody Phospho-specific Pab (Cat. #AP3765a) on nitrocellulose membrane. 50ng of Phospho-peptide or Non Phospho-peptide per dot were adsorbed. Antibody working concentrations are 0.6ug per ml.

### **Phospho-Belcin 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].

### **Phospho-Belcin 1 Antibody - References**

Koukourakis, M.I., et al. Br. J. Cancer 103(8):1209-1214(2010) Jaeger, P.A., et al. Arch. Neurol. 67(10):1181-1184(2010) Metzger, S., et al. Hum. Genet. 128(4):453-459(2010) Oberstein, A., et al. J. Biol. Chem. 282(17):13123-13132(2007) Furuya, N., et al. Autophagy 1(1):46-52(2005)

### **Phospho-Belcin 1 Antibody - Citations**

- [RTN4/Nogo-A-S1PR2 negatively regulates angiogenesis and secondary neural repair through enhancing vascular autophagy in the thalamus after cerebral cortical infarction](#)
- [The protective effort of GPCR kinase 2-interacting protein-1 in neurons via promoting Beclin1-Parkin induced mitophagy at the early stage of spinal cord ischemia-reperfusion injury](#)
- [GIT1 contributes to autophagy in osteoclast through disruption of the binding of Beclin1 and Bcl2 under starvation condition.](#)
- [Lipin-1 determines lung cancer cell survival and chemotherapy sensitivity by regulation of endoplasmic reticulum homeostasis and autophagy.](#)
- [Regulation of Beclin 1 Protein Phosphorylation and Autophagy by Protein Phosphatase 2A \(PP2A\) and Death-associated Protein Kinase 3 \(DAPK3\).](#)