

**Beclin 2 Antibody**  
**Catalog # ASC11861****Specification**

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**Beclin 2 Antibody - Product Information**

Application	WB, IHC-P, IF, E
Primary Accession	<a href="#">A8MW95</a>
Other Accession	<a href="#">NP_001277622</a> , <a href="#">595582373</a>
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	Predicted: 47 kDa

Application Notes	<b>Observed: 55 kDa KDa</b> <b>Beclin 2 antibody can be used for detection of Beclin 2 by Western blot at 1 - 2 µg/ml. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 20 µg/mL.</b>
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**Beclin 2 Antibody - Additional Information**

Gene ID **441925**

**Target/Specificity**

BECN1P1; Beclin 2 antibody is human specific. At least two isoforms of Beclin 2 are known to exist; this antibody will only detect the longer isoform. Beclin 2 antibody is predicted to not cross-react with Beclin 1.

**Reconstitution & Storage**

Beclin 2 antibody can be stored at 4°C for three months and -20°C, stable for up to one year.

**Precautions**

Beclin 2 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**Beclin 2 Antibody - Protein Information**

**Name** BECN2 {ECO:0000303|PubMed:23954414, ECO:0000312|HGNC:HGNC:38606}

**Function**

Involved in 2 distinct lysosomal degradation pathways: acts as a regulator of autophagy and as a regulator of G-protein coupled receptors turnover. Regulates degradation in lysosomes of a variety of G-protein coupled receptors via its interaction with GPRASP1/GASP1.

**Cellular Location**

Cytoplasm.

**Tissue Location**

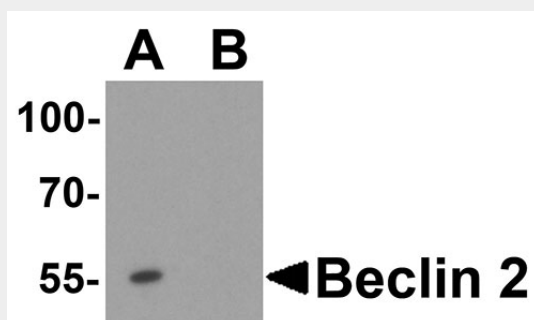
Present in fetal and adult brain (at protein level).

### Beclin 2 Antibody - Protocols

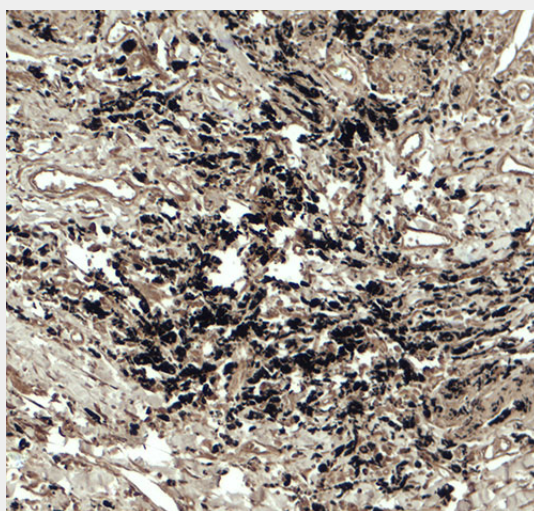
Provided below are standard protocols that you may find useful for product applications.

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

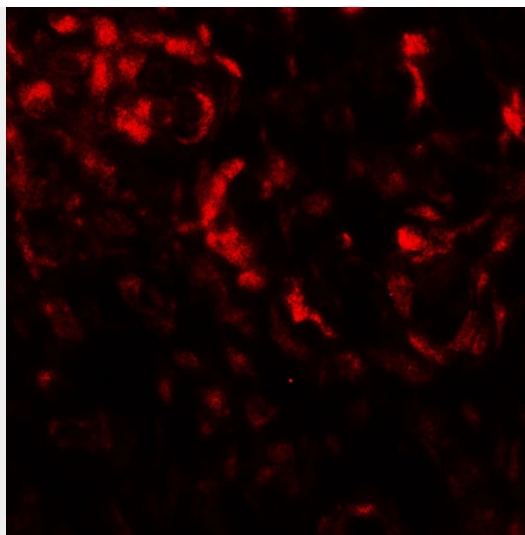
### Beclin 2 Antibody - Images



Western blot analysis of Beclin 2 in Jurkat cell lysate with Beclin 2 antibody at 1  $\mu$ g/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of Beclin 2 in human lung carcinoma tissue with Beclin 2 antibody at 5  $\mu$ g/ml.



Immunofluorescence of Beclin 2 in human lung carcinoma tissue with Beclin 2 antibody at 20  $\mu$ g/ml.

### **Beclin 2 Antibody - Background**

Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells (1,2). Beclin 2 is a mammalian specific homolog of the autophagy protein Beclin 1 (3). Like Beclin 1, Beclin 2 interacts with Bcl-2 and class III PI3K complex components. However, Beclin 2 functions in an additional lysosomal degradation pathway and is required for ligand-induced endolysosomal degradation of several G protein-coupled receptors (3). Beclin 2 is also required for agonist-induced lysosome-mediated degradation of EGFR in lung cancer cells, suggesting that it may also play a role in regulating other intracellular signaling pathways (4).

### **Beclin 2 Antibody - References**

Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. *Oncogene*. 2004; 23:2891-906.  
Kisen GO, Tessitore L, Costelli P, et al. Reduced autophagic activity in primary rat hepatocellular carcinoma and ascites hepatoma cells. *Carcinogenesis* 1993; 14:2501-5.  
He C, Wei Y, Sun K, et al. Beclin 2 functions in autophagy, degradation of G protein-coupled receptors, and metabolism. *Cell* 2013; 154:1085-99.  
Zhang W and He C. Regulation of plasma membrane receptors by a new autophagy-related BECN/Beclin family member. *Autophagy* 2014; 10: epub.