

Beclin 2 Antibody

Catalog # ASC11861

Product Information

Application	WB, IF, E, IHC-P
Primary Accession	A8MW95
Other Accession	NP_001277622 , 595582373
Reactivity	Human
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Calculated MW	48153
Concentration (mg/ml)	1 mg/mL
Conjugate	Unconjugated
Application Notes	Beclin 2 antibody can be used for detection of Beclin 2 by Western blot at 1 - 2 μ g/ml. Antibody can also be used for immunohistochemistry starting at 5 μ g/mL. For immunofluorescence start at 20 μ g/mL.

Additional Information

Gene ID	441925
Other Names	Beclin-2, Beclin-1 autophagy-related pseudogene 1 {ECO:0000312 HGNC:HGNC:38606}, Beclin-1-like protein 1 {ECO:0000312 MIM:615687}, BECN1P1 (HGNC:38606)
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.

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.

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).

References

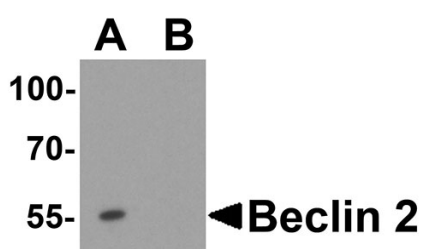
Gozuacik D and Kimchi A. Autophagy as a cell death and tumor suppressor mechanism. *Oncogene*. 2004; 23:2891-906.

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.

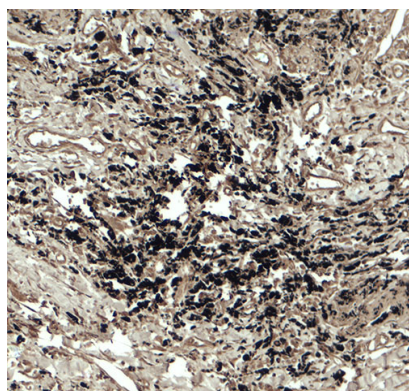
He C, Wei Y, Sun K, et al. Beclin 2 functions in autophagy, degradation of G protein-coupled receptors, and metabolism. *Cell* 2013; 154:1085-99.

Zhang W and He C. Regulation of plasma membrane receptors by a new autophagy-related BECN/Beclin family member. *Autophagy* 2014; 10: epub.

Images

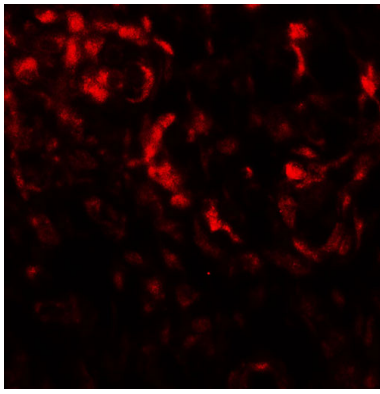


Western blot analysis of Beclin 2 in Jurkat cell lysate with Beclin 2 antibody at 1 µg/ml in (A) the absence and (B) the presence of blocking peptide.



Immunohistochemistry of Beclin 2 in human lung carcinoma tissue with Beclin 2 antibody at 5 µg/ml.

Immunofluorescence of Beclin 2 in human lung carcinoma tissue with Beclin 2 antibody at 20 µg/ml.



Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.