For Research Use Only

Beclin 1 Monoclonal antibody

Catalog Number:66665-1-Ig 64 Publications

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Basic Information

Catalog Number:
66665-1-Ig

Size:
1500 μg/ml

Source:
Mouse

Isotype:
IgG1

Immunogen Catalog Number:
AG1843

GenBank Accession Number:
BC010276

GeneID (NCBI):
8678

UNIPROT ID:
Q14457

Full Name:
beclin 1, autophagy related

Calculated MW:
52 kDa

Observed MW:
52-60 kDa

Purification Method:
Protein A purification

CloneNo.:
1C10C4

Recommended Dilutions:
WB 1:1000-1:5000
IHC 1:250-1:1000
IF 1:50-1:500

Applications

Tested Applications:
IF/ICC, IHC, WB, ELISA

Cited Applications:
IF, IHC, IP, WB

Species Specificity:
Human, Mouse, Rat

Cited Species:
human, goat, rat, mouse

Note-IHC: suggested antigen retrieval with TE buffer pH 9.0; (*) Alternatively, antigen retrieval may be performed with citrate buffer pH 6.0

Positive Controls:

WB : HeLa cells, HEK-293 cells, HepG2 cells, MCF-7 cells, LNCaP cells, Jurkat cells, HSC-T6 cells, NIH/3T3 cells, RAW 264.7 cells

IHC : human stomach tissue,

IF : mouse heart tissue,

Background Information

Beclin 1, also known as ATG6 or VPS30, interacts with various cofactors (e.g. Ambra1, Barkor (Atg14), Rubicon, or UVRAG) to regulate the lipid kinase Vps34 and promote the formation of the BECLIN1-Vps34-Vps15 complex, hence inducing autophagy. Its function (via the BH3 domain) is inhibited by Bcl-2 or Bcl-XL. Beclin 1 (BECN1) is a crucial molecule in the control of the autophagic activity, and its activity is regulated by multiple mechanisms, including the post-translational modification, protein-protein interaction, and subcellular localization. It plays a role in crosstalk between apoptosis and autophagy. It has been reported that Beclin 1 can be cleaved into fragments of 50, 37 and 35 kDa during apoptosis. It is involved in many disorders, including neurodegeneration and cancer (tumorigenesis). Beclin 1 is a mammalian tumor suppressor, and its gene is monoallelically deleted in 75% of ovarian, 50% of breast, and 40% of prostate cancers. Decreased expression of Beclin 1 has also been observed in human brain and lung tumors. The level of Beclin 1 was decreased in the affected brain regions of patients with Alzheimer's disease early in the disease process. Recent studies have also shown that gain and loss of Beclin 1 function affects the death of heart cells.

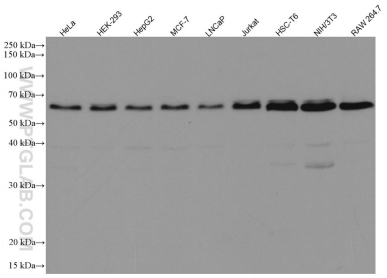
Notable Publications

Author	Pubmed ID	Journal	Application
Yushan Mao	36175702	Med Oncol	WB
Linlin Deng	34551652	Drug Chem Toxicol	WB
Jing Han	34487720	Arch Biochem Biophys	WB

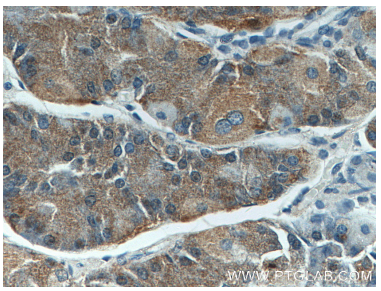
Storage

Storage:
Store at -20°C. Stable for one year after shipment.
Storage Buffer:
PBS with 0.02% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage

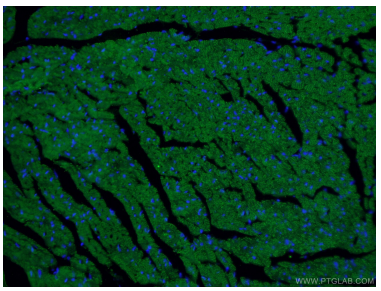
Selected Validation Data



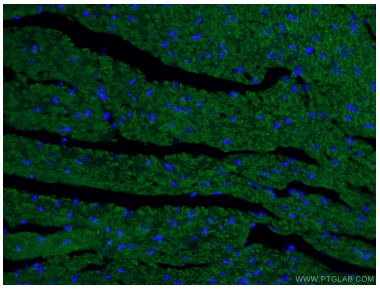
Various lysates were subjected to SDS PAGE followed by western blot with 66665-1-Ig (Beclin 1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



Immunohistochemical analysis of paraffin-embedded human stomach tissue slide using 66665-1-Ig (Beclin 1 antibody) at dilution of 1:500 (under 10x lens).



Immunofluorescent analysis of (4% PFA) fixed mouse heart tissue using 66665-1-Ig (Beclin 1 antibody) at dilution of 1:100 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).



Immunofluorescent analysis of (4% PFA) fixed mouse heart tissue using 66665-1-Ig (Beclin 1 antibody) at dilution of 1:100 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Mouse IgG(H+L).