

For Research Use Only

Beclin 1 Polyclonal antibody

Catalog Number: 11306-1-AP

Featured Product

1022 Publications



Basic Information

Catalog Number:

11306-1-AP

Size:

150ul, Concentration: 600 ug/ml by Nanodrop;

Source:

Rabbit

Isotype:

IgG

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:

Antigen affinity purification

Recommended Dilutions:

WB 1:1000-1:10000

IP 0.5-4.0 ug for 1.0-3.0 mg of total protein lysate

IHC 1:50-1:500

IF-P 1:50-1:500

IF-Fro 1:50-1:500

IF/ICC 1:200-1:800

Applications

Tested Applications:

WB, IHC, IF/ICC, IF-P, IF-Fro, IP, ELISA

Cited Applications:

WB, IHC, IF, IP, CoIP, ELISA

Species Specificity:

human, mouse, rat

Cited Species:

human, mouse, rat, pig, chicken, zebrafish, hamster, sheep, goat, fish

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 : C6 cells, HEK-293 cells, Raji cells, L02 cells, PC-3 cells, A431 cells, HT-1080 cells, human placenta tissue, mouse brain tissue, rat brain tissue, HeLa cells, NIH/3T3 cells, MDA-MB-453s cells, SH-SY5Y cells

IP : MDA-MB-453s cells,

IHC : human breast cancer tissue, human breast hyperplasia tissue, human prostate hyperplasia tissue, human cervical cancer tissue, human colon cancer tissue, human stomach tissue, human liver cancer tissue

IF-P : mouse heart tissue,

IF-Fro : mouse heart tissue,

IF/ICC : NIH/3T3 cells,

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
Samana Batool	30274346	Int J Mol Sci	WB
Jiawei Hao	36126167	Autophagy	WB
Wenyuan Li	34588431	Cell Death Discov	WB

Storage

Storage:

Store at -20°C. Stable for one year after shipment.

Storage Buffer:

PBS with 0.02% sodium azide and 50% glycerol, pH7.3

Aliquoting is unnecessary for -20°C storage

*** 20ul sizes contain 0.1% BSA

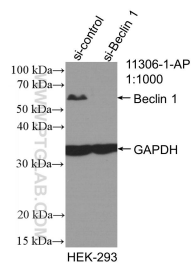
For technical support and original validation data for this product please contact:

T: 1 (888) 4PTGLAB (1-888-478-4522) (toll free in USA), or 1(312) 455-8498 (outside USA)

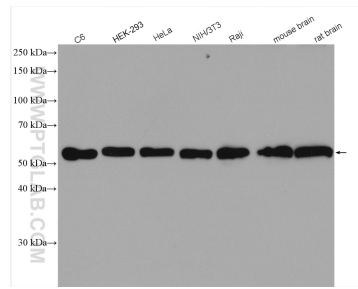
E: proteintech@ptglab.com
W: ptglab.com

This product is exclusively available under Proteintech Group brand and is not available to purchase from any other manufacturer.

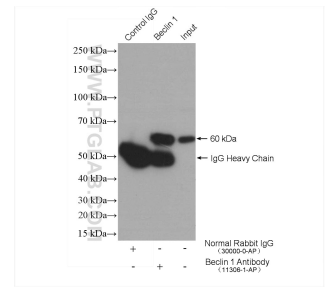
Selected Validation Data



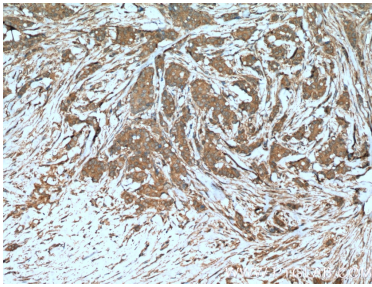
WB result of Beclin 1 antibody (11306-1-AP; 1:1000; incubated at room temperature for 1.5 hours) with sh-Control and sh-Beclin 1 transfected HEK-293 cells.



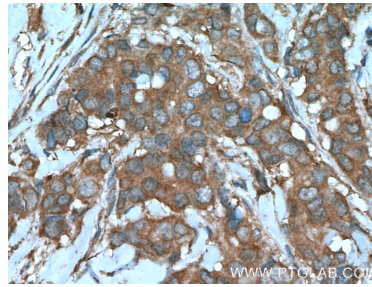
Various lysates were subjected to SDS PAGE followed by western blot with 11306-1-AP (Beclin 1 antibody) at dilution of 1:6000 incubated at room temperature for 1.5 hours.



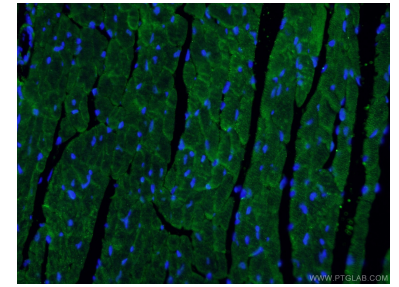
IP result of anti-Beclin 1 (IP:11306-1-AP, 4ug; Detection:11306-1-AP 1:1000) with MDA-MB-453 cells lysate 2800 ug.



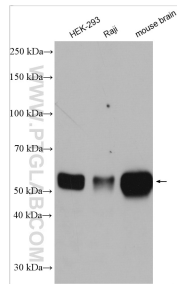
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 11306-1-AP (Beclin 1 Antibody) at dilution of 1:200 (under 10x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



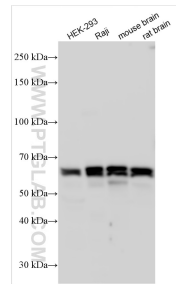
Immunohistochemical analysis of paraffin-embedded human breast cancer tissue slide using 11306-1-AP (Beclin 1 Antibody) at dilution of 1:200 (under 40x lens). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



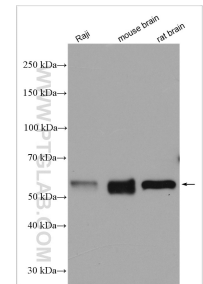
Immunofluorescent analysis of (4% PFA) fixed mouse heart tissue using 11306-1-AP (Beclin 1 antibody) at dilution of 1:50 and Alexa Fluor 488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



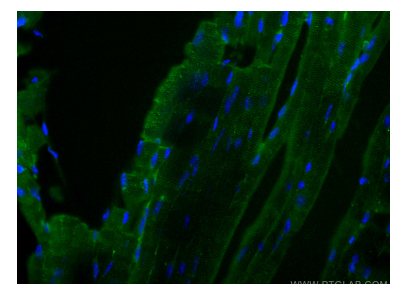
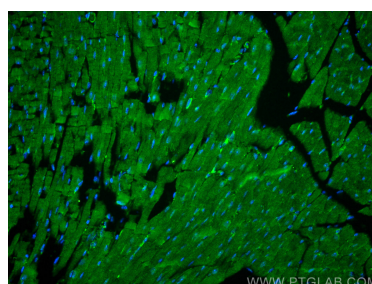
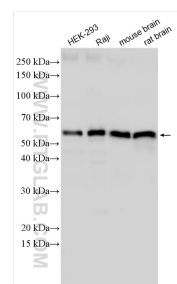
Various lysates were subjected to SDS PAGE followed by western blot with 11306-1-AP (Beclin 1 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



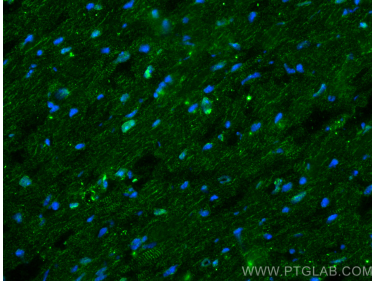
Various lysates were subjected to SDS PAGE followed by western blot with 11306-1-AP (Beclin 1 antibody) at dilution of 1:8000 incubated at room temperature for 1.5 hours.



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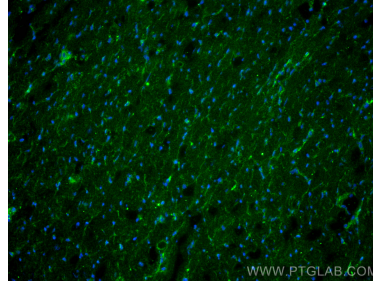


Various lysates were subjected to SDS PAGE followed by western blot with 11306-1-AP (Beclin 1 antibody) at dilution of 1:10000 incubated at room temperature for 1.5 hours.



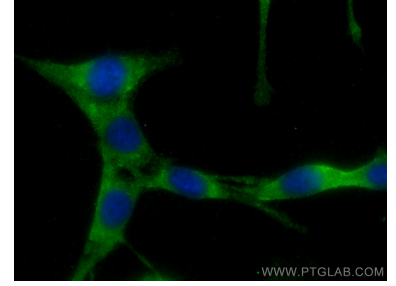
Immunofluorescent analysis of unfixed frozen OCT-embedded mouse heart tissue using Beclin 1 antibody (11306-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).

Immunofluorescent analysis of (4% PFA) fixed paraffin-embedded mouse heart tissue using Beclin 1 antibody (11306-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2). Heat mediated antigen retrieval with Tris-EDTA buffer (pH 9.0).



Immunofluorescent analysis of unfixed frozen OCT-embedded mouse heart tissue using Beclin 1 antibody (11306-1-AP) at dilution of 1:200 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L) (SA00013-2).

Immunofluorescent analysis of (4% PFA) fixed mouse heart tissue using Beclin 1 antibody (11306-1-AP) at dilution of 1:400 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).



Immunofluorescent analysis of (-20°C Ethanol) fixed NIH/3T3 cells using Beclin 1 antibody (11306-1-AP) at dilution of 1:400 and CoraLite@488-Conjugated AffiniPure Goat Anti-Rabbit IgG(H+L).