Beclin 1
Monoclonal ANTIBODY
Catalog Number: 66665-1-Ig

Basic Information

Catalog Number: 66665-1-Ig
Size: 150μL, 1000 μg/mL
Source: Mouse
Isotype: IgG1
Purification Method: Protein G purification

GenBank Accession Number: BC010276
GeneID (NCBI): 8678
Full Name: beclin 1, autophagy related
Calculated MW: 52 kDa
Observed MW: 60 kDa
Immunogen Catalog Number: AG1843
Clone No.: 1C10C4
Recommended Dilutions:
WB: 1:2000-1:20000
IHC: 1:250-1:1000
IF: 1:50-1:500

Applications

Tested Applications:
IF, IHC, WB, EUSA
Cited Applications:
IF, IHC, WB
Species Specificity:
Human, Mouse, Rat
Cited Species:
human, rat

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

Background Information

Bellini 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

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<th>Author</th>
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<tr>
<td>Neng Wang</td>
<td>31629951</td>
<td>Biomed Pharmacother</td>
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<tr>
<td>Jiankang Feng</td>
<td>32256964</td>
<td>Oxid Med Cell Longev</td>
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<td>Peng Sun</td>
<td>31937766</td>
<td>Nat Commun</td>
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Storage

Store at -20°C.
Storage Buffer:
PBS with 0.1% sodium azide and 50% glycerol pH 7.3.
Aliquoting is unnecessary for -20°C storage.

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

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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).