Anti-Beclin-1 (NT)

(Coiled-coil myosin-like Bcl-2-interacting protein)

CATALOG No: AS-54229

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-1, a coiled-coil Bcl-2-interacting protein homologous to the yeast autophagy gene apg6 (3, 4), is a mammalian autophagy gene that can inhibit tumorigenesis and is expressed at reduced levels in human breast carcinoma, suggesting that defects in autophagy proteins may contribute to the development or progression of tumors (5). Bcl-2 can bind to Beclin-1 and inhibit Beclin-1-dependent autophagy in yeast and mammalian cells, suggesting that Bcl-2 functions as an anti-autophagy protein as well as an anti-apoptotic protein, which helps maintain autophagy at levels that are more compatible with cell survival rather than cell death (6).

SOURCE AND REACTIVITY:

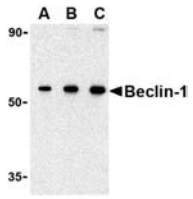
Rabbit anti-Beclin-1 polyclonal antibody was raised against a 17 amino acid peptide from near the N-terminus of human Beclin-1 (Genbank accession No. AAH10276). Anti-Beclin-1 reacts with Beclin-1 at the molecular weight of approximately 52 kDa on western blot. Species reactivity includes human, mouse and rat, while others are not tested.

APPLICATION:

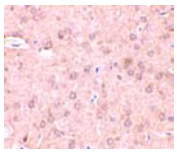
The following concentration ranges are recommended starting points for this product.

WB: 0.5 – 1 µg/ml
IHC

Positive Control: 293 cell lysate



Western blot analysis of Beclin-1 in 293 cell lysate with anti-Beclin-1 at (A) 0.5, (B) 1 and (C) 2 µg/ml.



Immunohistochemistry of beclin-1 in rat brain tissue with anti-beclin-1 at 2 µg/ml.

This product is for in vitro research purposes only.

RELATED PRODUCTS:

Anti-APG7 (CT), Catalog No. AS-54230

STORAGE:

The antibody is supplied as immunoaffinity purified IgG, in 1X PBS containing 0.02% Sodium Azide. Store at 2-8 ˚C for up to 1 year. Avoid repeated freeze thaw cycles.

REFERENCES:

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2. Kisen, GO. et al. *Carcinogenesis* **14**, 2501 (1993).
3. Liang, XH. et al. *J. Virol.* **72**, 8586 (1998).
4. Kametaka, S. et al. *J. Biol. Chem.* **273**, 22284 (1998).
5. Liang, XH. et al. *Nature* **402**, 672 (1999).
6. Pattingre, S. et al. *Cell* **122**, 927 (2005).