

Beclin-1 Polyclonal Antibody

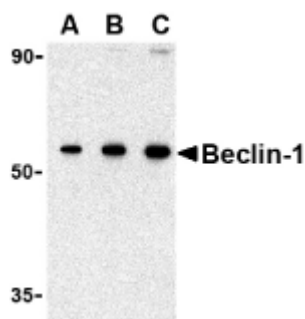
Product Specifications	
Catalog Number:	905-721-100
Host:	Rabbit
Species Reactivity:	Human, mouse, rat
Applications: <i>The optimal dilution for a specific application must be determined by the investigator</i>	WB: 0.5-1 µg/mL IHC: 2 µg/mL
Predicted m.w.:	~57 kDa
Concentration:	See product label
Purification:	Peptide Affinity
Format:	PBS, 0.02% sodium azide
Storage: <i>Shipping conditions may differ from the recommended storage temperature</i>	Store at -20°C
Immunogen:	Synthetic peptide corresponding to sequence near the amino-terminus of human Beclin-1
Related Products:	
905-722-100	APG7 Polyclonal Antibody
905-724-100	PIST Polyclonal Antibody
900-133	Bcl-2 EIA kit

Background:

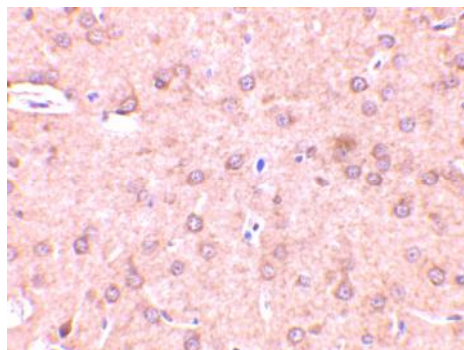
Autophagy, the process of bulk degradation of cellular proteins through an autophagosomic-lysosomal pathway is important for normal growth control and may be defective in tumor cells^{1,2}. Beclin-1, a coiled-coil Bcl-2-interacting protein homologous to the yeast autophagy gene *apg6*^{3,4}, is a mammalian 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 tumors⁵. Bcl-2 can 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 that helps maintain autophagy at levels that are more compatible with cell survival rather than cell death⁶.

References:

1. Gozuacik, D. and Kimchi, A. (2004) *Oncogene* **23**, 2891-2906.
2. Kisen, G.O., *et al.* (1993) *Carcinogenesis* **14**, 2501-2505.
3. Liang, X.H., *et al.* (1998) *J Virol* **72**, 8586-8596.
4. Kametaka, S., *et al.* (1998) *J Biol Chem* **273**, 22284-22291.
5. Liang, X.H., *et al.* (1999) *Nature* **402**, 672-676.
6. Patingre, S., *et al.* (2005) *Cell* **122**, 927-939.



Western blot analysis of 293 cell lysate with Beclin-1 Polyclonal Antibody at (A) 0.5, (B) 1 and (C) 2 µg/mL



Immunohistochemistry of rat brain tissue with Beclin-1 Polyclonal Antibody at 2 µg/mL

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5777 Hines Drive • Ann Arbor, MI • 48108 | Tel: 800-833-8651 or 800-668-6113 | Fax: 734-668-2793
www.assaydesigns.com | orders@assaydesigns.com | technical@assaydesigns.com

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