



Beclin-1 (Beclin 1 (Coiled-coil Moesin-like BCL2-interacting Protein), Beclin1, BECN1, APG6, ATG6, ATG6 Autophagy-related 6 Homolog, Coiled-coil Myosin-like Bcl-2-Interacting Protein, GT197, Protein GT197, VPS30) (HRP)

Catalog number

B0981-23T

Supplier

United States Biological

Beclin 1 is the first identified mammalian gene to mediate autophagy and also has tumor suppressor and antiviral function. Autophagy, a process of bulk protein degradation through an autophagosomal-lysosomal pathway, is important for differentiation, survival during nutrient deprivation, and normal growth control, and is often defective in tumor cells. Beclin 1 was originally isolated in a yeast two hybrid screen to identify Bcl-2-binding partners and maps to a tumor susceptibility locus on human chromosome 17q21 that is frequently monoallelically deleted in human breast, ovarian and prostate cancer. Beclin 1 encodes an evolutionarily conserved 60 kDa coiled coil protein that is expressed in human muscle, epithelial cells and neurons. In gene transfer studies, beclin 1 promotes nutrient deprivation-induced autophagy, inhibits mammary tumorigenesis, and inhibits viral replication. Expression of the Beclin 1 protein is frequently decreased in malignant breast epithelial cells. Based upon these observations, it is speculated that beclin 1 may work through induction of autophagy to negatively regulate tumorigenesis and to control viral infections. Beclin 1 may also play a role in other biological processes in which autophagy is important such as cell differentiation and nutritional stress responses.

Applications

Suitable for use in Western Blot, Immunofluorescence, Immunohistochemistry (paraffin). Other applications not tested.

Recommended Dilution

Western Blot: 1:2000-1:5000, a band is seen at ~52 kD

Immunofluorescence: mouse tissue

Optimal dilution determined by the researcher.

Storage and Stability

Store at 2-8°C. Do Not Freeze! Aliquots are stable for at least 3 months. For maximum recovery of product, centrifuge the original vial after thawing and prior to removing the cap. Further dilutions can be made in assay buffer. Sodium azide is a potent inhibitor of peroxidase and should not be added to HRP conjugates.

Immunogen

Internal synthetic peptide to human Beclin 1, containing residues within 1-100. Cellular Localization: Cell Membrane, Cytoplasmic and Golgi Apparatus. Expressed in dendrites and cell bodies of cerebellar Purkinje cells.

**Formulation**

Supplied as a liquid in PBS. Labeled with HRP. No preservative added.

Purity

Purified by immunoaffinity chromatography.

Specificity

Recognizes human Beclin 1. 94% identity with the mouse sequence and 88% identity with the rat sequence.

Product Type

Pab

Source

human

Isotype

IgG

Grade

Affinity Purified

Applications

IF IHC WB

Crossreactivity

Hu

Storage

4°C Do Not Freeze

Detection Method

HRP