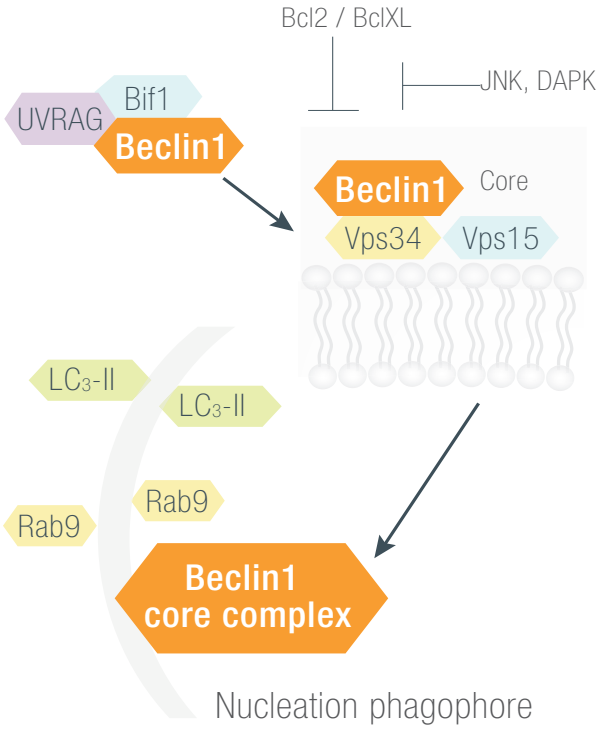
Crown insight

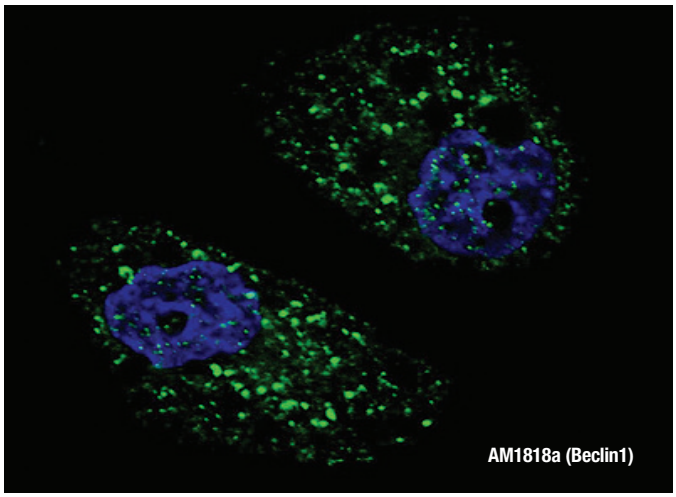
OCTOBER 2013 :

Beclin1

Introduction

Beclin-1 is a Bcl-2-homology protein that has been shown to control the formation and maturation of autophagosomes. Beclin interacts with cofactors such as Atg14L, UVRAG and Bif-1, Ambra, leading to activation of the lipid kinase Vps-34 and formation of Beclin-Vps34-Vps15 complex, all promoting the nucleation of the autophagosome. This complex can be disrupted through the interaction of Beclin with Bcl-2 or Bcl-XL, which inhibits autophagy. The interaction of Beclin-1 with either Bcl-2 or Bcl-XL could also be inhibited when Beclin-1 is phosphorylated at Thr-119 by the death-associated protein kinase (DAPK) or by the phosphorylation of Bcl-2 by c-Jun kinase 1 (JNK-1). The null mutation of Beclin-1 is lethal during early embryonic development in mice. Several studies have shown that in normal human tissues the deletion of a single allele of Beclin-1 leads to 40-75% of sporadic breast and ovarian cancers.





Fluorescent image of U251 cells stained with AM1818a Beclin-1 antibody. U251 cells were treated with Chloroquine and incubated with AM1818a Beclin-1 antibody, showing Beclin-1 localized to autophagic vacuoles in the cytoplasm of U251 cells (green). Nuclei were counterstained with Hoechst 33342 (blue).

Selected Abgent Products

CAT. #	TARGET NAME
AM1818a	Beclin-1 Antibody (Ascites)
AP1303a	Beclin-2 Antibody (BH3 Domain Specific)
AP1304a	Bcl-G BH3 Domain Antibody
AP1321a	BNIP3 Antibody (BH3 Domain Specific)
AP1850b	UVRAG Antibody (C-term)
AP1850d	UVRAG Antibody (L133)
AP7958a	BCL2L1 Antibody (N-term)
AP7958c	BCL2L1 Antibody (Center)
AP7505a	MAPK8 Antibody (C-term)
AP8014a	PI3KC3 Antibody (N-term)
AP1851a	PI3KC3 Antibody (N-term G24)
AP1851a	PI3KC3 Antibody (S34)
AP7033a	DAPK2 Antibody (N-term)
AP7217b	DAPK1 Antibody (C-term)
AP1850b	UVRAG Antibody (C-term)

Visual categorization

Target associated (orange)

Autophagy Stem Cell Neurodegeneration

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