Beclin 1 (E-8): sc-48341

**BACKGROUND**

Beclin 1 (BECN1) is a coiled-coil protein that has been implicated as an inhibitor of tumorigenesis. Beclin 1, which associates with Bcl-2, plays a significant role in autophagy. Autophagy is the degradation of cellular proteins in the lysosomes, and when this pathway is suppressed, cell growth is deregulated. Autophagy is controlled by the same signal transduction pathway that induces the phosphorylation of the Ribosomal Protein S6, and both are mediated via amino acids. Beclin 1 expression in various carcinoma cell lines such as MCF7 is low, whereas it is ubiquitously expressed in normal breast tissue. In transfected MCF7 cells, Beclin 1 complements autophagy-toxis and, subsequently, inhibits cellular proliferation. Additionally, Beclin 1 shares structural similarity to the yeast autophagy gene product, Apg6, and was one of the first mammalian proteins discovered to mediate autophagy.

**CHROMOSOMAL LOCATION**

Genetic locus: BECN1 (human) mapping to 17q21.31; Becn1 (mouse) mapping to 11 D.

**SOURCE**

Beclin 1 (E-8) is a mouse monoclonal antibody raised against amino acids 1-300 of Beclin 1 of human origin.

**PRODUCT**

Each vial contains 200 µg IgG2a kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Beclin 1 (E-8) is available conjugated to agarose (sc-48341 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-48341 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-48341 PE), fluorescein (sc-48341 FITC), Alexa Fluor® 488 (sc-48341 AF488), Alexa Fluor® 546 (sc-48341 AF546), Alexa Fluor® 594 (sc-48341 AF594) or Alexa Fluor® 647 (sc-48341 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-48341 AF680) or Alexa Fluor® 790 (sc-48341 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

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**APPLICATIONS**

Beclin 1 (E-8) is recommended for detection of Beclin 1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:3000), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), immunohistochemistry (including paraffin-embedded sections) (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for Beclin 1 siRNA (h): sc-29797, Beclin 1 siRNA (m): sc-29798, Beclin 1 shRNA Plasmid (h): sc-29797-SH, Beclin 1 shRNA Plasmid (m): sc-29798-SH, Beclin 1 shRNA (h) Lentiviral Particles: sc-29797-V and Beclin 1 shRNA (m) Lentiviral Particles: sc-29798-V.

Molecular Weight of Beclin 1: 60 kDa.

Positive Controls: NIH/3T3 whole cell lysate: sc-2210, RAW 264.7 whole cell lysate: sc-2211 or HEL 92.1.7 cell lysate: sc-2270.

**STORAGE**

Store at 4° C, **“DO NOT FREEZE”**. Stable for one year from the date of shipment. Non-hazardous. No MSDS required.

**DATA**

| Beclin 1 (E-8) HRP: sc-48341 HRP. Direct western blot analysis of Beclin 1 expression in NIH/3T3 (A), C3H/10T1/2 (B), HEL 92.1.7 (C), RAW 264.7 (D), Jurkat (E) and A549 (F) whole cell lysates. |
| Beclin 1 (E-8) Alexa Fluor® 488: sc-48341 AF488. Direct immunofluorescence staining of formalin-fixed 3T3(B10) cells showing nuclear and perinuclear localization. Blocked with UltraCruz® Blocking Reagent: sc-510214 (A), Beclin 1 (E-8): sc-48341. Immunoperoxidase staining of formalin fixed paraffin-embedded human skeletal muscle tissue showing cytoplasmic staining of myocytes (B). |

**SELECT PRODUCT CITATIONS**


**RESEARCH USE**

For research use only, not for use in diagnostic procedures.