

UBE2J1 (B-6): sc-377002



The Power to Question

BACKGROUND

Ubiquitination is an important molecular mechanism by which abnormal or short-lived proteins are targeted for degradation by the concerted efforts of at least three classes of enzymes: ubiquitin-activating enzymes (E1s), ubiquitin-conjugating enzymes (E2s) and ubiquitin-protein ligases (E3s). UBE2J1 (ubiquitin-conjugating enzyme E2 J1), also known as Ubc6p, CGI-76, NCUBE1, HSPC153 or HSPC205, is a 318 amino acid single-pass type IV membrane protein that belongs to the E2 ubiquitin-conjugating enzyme family and is involved in protein degradation. Localized to the membrane of the endoplasmic reticulum (ER), UBE2J1 catalyzes the attachment of ubiquitin to misfolded membrane proteins, thereby targeting them for proteasomal destruction. This ATP-dependent reaction yields AMP, a diphosphate and a ubiquitin-tagged protein and may be a method of quality control within the ER.

CHROMOSOMAL LOCATION

Genetic locus: UBE2J1 (human) mapping to 6q15; Ube2j1 (mouse) mapping to 4 A5.

SOURCE

UBE2J1 (B-6) is a mouse monoclonal antibody raised against amino acids 93-196 mapping within an internal region of UBE2J1 of human origin.

PRODUCT

Each vial contains 200 µg IgG₁ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

UBE2J1 (B-6) is available conjugated to agarose (sc-377002 AC), 500 µg/0.25 ml agarose in 1 ml, for IP; to HRP (sc-377002 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-377002 PE), fluorescein (sc-377002 FITC), Alexa Fluor® 488 (sc-377002 AF488), Alexa Fluor® 546 (sc-377002 AF546), Alexa Fluor® 594 (sc-377002 AF594) or Alexa Fluor® 647 (sc-377002 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-377002 AF680) or Alexa Fluor® 790 (sc-377002 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

APPLICATIONS

UBE2J1 (B-6) is recommended for detection of UBE2J1 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), 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).

UBE2J1 (B-6) is also recommended for detection of UBE2J1 in additional species, including equine and canine.

Suitable for use as control antibody for UBE2J1 siRNA (h): sc-95256, UBE2J1 siRNA (m): sc-154853, UBE2J1 shRNA Plasmid (h): sc-95256-SH, UBE2J1 shRNA Plasmid (m): sc-154853-SH, UBE2J1 shRNA (h) Lentiviral Particles: sc-95256-V and UBE2J1 shRNA (m) Lentiviral Particles: sc-154853-V.

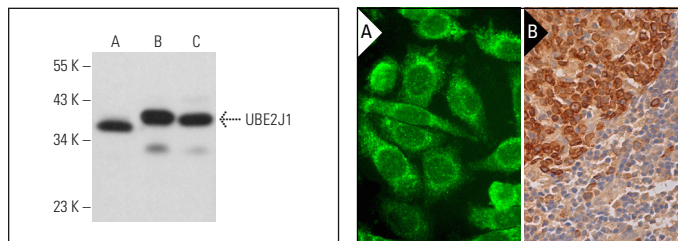
Molecular Weight of UBE2J1: 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200.

STORAGE

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

DATA



UBE2J1 (B-6): sc-377002. Western blot analysis of UBE2J1 expression in HeLa (A), Neuro-2A (B) and 3T3-L1 (C) whole cell lysates.

UBE2J1 (B-6): sc-377002. Immunofluorescence staining of formalin-fixed SW480 cells showing cytoplasmic localization (A). Immunoperoxidase staining of formalin fixed, paraffin-embedded human lymph node tissue showing cytoplasmic and membrane staining of cells in germinal centers and weak cytoplasmic staining of cells in non-germinal centers (B).

SELECT PRODUCT CITATIONS

- Zhong, Y., et al. 2015. Identification of ERAD components essential for dislocation of the null Hong Kong variant of α -1-antitrypsin (NHK). *Biochem. Biophys. Res. Commun.* 458: 424-428.
- Chen, Q., et al. 2016. HRD1-mediated ERAD tuning of ER-bound E2 is conserved between plants and mammals. *Nat. Plants* 2: 16094.
- Liu, X., et al. 2019. Human cytomegalovirus evades antibody-mediated immunity through endoplasmic reticulum-associated degradation of the FcRn receptor. *Nat. Commun.* 10: 3020.
- Coy-Vergara, J., et al. 2019. A trap mutant reveals the physiological client spectrum of TRC40. *J. Cell Sci.* 132: jcs230094.
- Wang, Y., et al. 2020. Cross-talks of glycosylphosphatidylinositol biosynthesis with glycosphingolipid biosynthesis and ER-associated degradation. *Nat. Commun.* 11: 860.
- Cremer, T., et al. 2021. The ER-embedded UBE2J1/RNF26 ubiquitylation complex exerts spatiotemporal control over the endolysosomal pathway. *Cell Rep.* 34: 108659.
- Phoomak, C., et al. 2021. The translocon-associated protein (TRAP) complex regulates quality control of N-linked glycosylation during ER stress. *Sci. Adv.* 7: eabc6364.
- Ruan, J., et al. 2022. A small-molecule inhibitor and degrader of the RNF5 ubiquitin ligase. *Mol. Biol. Cell.* E-published.

RESEARCH USE

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

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