SANTA CRUZ BIOTECHNOLOGY, INC.

UBE2J1 (L-23): sc-134138



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.

REFERENCES

- 1. Gilon, T., Chomsky, O. and Kulka, R.G. 2000. Degradation signals recognized by the Ubc6p-Ubc7p ubiquitin-conjugating enzyme pair. Mol. Cell. Biol. 20: 7214-7219.
- Lester, D., Farquharson, C., Russell, G. and Houston, B. 2000. Identification of a family of noncanonical ubiquitin-conjugating enzymes structurally related to yeast UBC6. Biochem. Biophys. Res. Commun. 269: 474-480.
- Walter, J., Urban, J., Volkwein, C. and Sommer, T. 2001. Sec61p-independent degradation of the tail-anchored ER membrane protein Ubc6p. EMBO J. 20: 3124-3131.
- Tiwari, S. and Weissman, A.M. 2001. Endoplasmic reticulum (ER)-associated degradation of T cell receptor subunits. Involvement of ER-associated ubiquitin-conjugating enzymes (E2s). J. Biol. Chem. 276: 16193-16200.
- Botero, D., Gereben, B., Goncalves, C., De Jesus, L.A., Harney, J.W. and Bianco, A.C. 2002. Ubc6p and Ubc7p are required for normal and substrateinduced endoplasmic reticulum-associated degradation of the human selenoprotein type 2 iodothyronine monodeiodinase. Mol. Endocrinol. 16: 1999-2007.
- Lenk, U., Yu, H., Walter, J., Gelman, M.S., Hartmann, E., Kopito, R.R. and Sommer, T. 2002. A role for mammalian Ubc6 homologues in ER-associated protein degradation. J. Cell. Sci. 115 (Pt. 14): 3007-3014.

CHROMOSOMAL LOCATION

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

SOURCE

UBE2J1 (L-23) is a Protein A purified rabbit polyclonal antibody raised against synthetic UBE2J1 peptide of human origin.

PRODUCT

Each vial contains 100 μg lgG in 1.0 ml PBS with < 0.1% sodium azide, 0.1% gelatin and < 0.02% sucrose.

APPLICATIONS

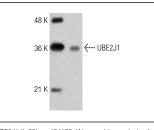
UBE2J1 (L-23) is recommended for detection of UBE2J1 of mouse and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500), 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).

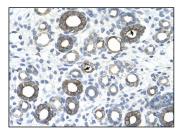
Suitable for use as control antibody for UBE2J1 siRNA (h): sc-95256, UBE2J1 siRNA (m): sc-154853, UBE2J1 shRNA Plasmid (h): sc-95256-SH, UBE2J1 shRNA Plasmid (m): sc-154853-SH, UBE2J1 shRNA (h) Lentiviral Particles: sc-95256-V and UBE2J1 shRNA (m) Lentiviral Particles: sc-154853-V.

Molecular Weight of UBE2J1: 35 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

DATA





UBE2J1 (L-23): sc-134138. Western blot analysis of UBE2J1 expression in Jurkat whole cell lysate.

UBE2J1 (L-23): sc-134138. Immunoperoxidase staining of formalin-fixed, paraffin-embedded human kidney tissue showing cytoplasmic and membrane localization.

STORAGE

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

RESEARCH USE

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

PROTOCOLS

Guaranteed

See our web site at www.scbt.com or our catalog for detailed protocols and support products.

MONOS Satisfation Try UBE2J1 (B-6): sc-377002 or UBE2J1 (18-Y): sc-100624, our highly recommended monoclonal

alternatives to UBE2J1 (L-23).