

UBE2J1 (G-16): sc-109122

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

- Gilon, T., et al. 2000. Degradation signals recognized by the Ubc6p-Ubc7p ubiquitin-conjugating enzyme pair. *Mol. Cell. Biol.* 20: 7214-7219.
- Lester, D., et al. 2000. Identification of a family of noncanonical ubiquitin-conjugating enzymes structurally related to yeast UBC6. *Biochem. Biophys. Res. Commun.* 269: 474-480.
- Walter, J., et al. 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., et al. 2002. Ubc6p and Ubc7p are required for normal and substrate-induced endoplasmic reticulum-associated degradation of the human selenoprotein type 2 iodothyronine monodeiodinase. *Mol. Endocrinol.* 16: 1999-2007.
- Lenk, U., et al. 2002. A role for mammalian Ubc6 homologues in ER-associated protein degradation. *J. Cell Sci.* 115: 3007-3014.
- Wu, C.J., et al. 2005. TNF α induced c-IAP1/TRAF2 complex translocation to a Ubc6-containing compartment and TRAF2 ubiquitination. *EMBO J.* 24: 1886-1898.
- Oh, R.S., et al. 2006. Human homologs of Ubc6p ubiquitin-conjugating enzyme and phosphorylation of HsUbc6e in response to endoplasmic reticulum stress. *J. Biol. Chem.* 281: 21480-21490.

CHROMOSOMAL LOCATION

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

SOURCE

UBE2J1 (G-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within a cytoplasmic domain of UBE2J1 of human origin.

STORAGE

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

PRODUCT

Each vial contains 200 μ g IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-109122 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UBE2J1 (G-16) is recommended for detection of UBE2J1 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunofluorescence (starting dilution 1:50, dilution range 1:50-1:500) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000); non cross-reactive with other UBE2 family members.

UBE2J1 (G-16) is also recommended for detection of UBE2J1 in additional species, including equine, canine, bovine, porcine and avian.

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

RESEARCH USE

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

PROTOCOLS

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


 MONOS
Satisfation
Guaranteed

Try **UBE2J1 (B-6): sc-377002** or **UBE2J1 (18-Y): sc-100624**, our highly recommended monoclonal alternatives to UBE2J1 (G-16).