# SANTA CRUZ BIOTECHNOLOGY, INC.

# UBE2L3 (C-20): sc-47549



#### BACKGROUND

The ubiquitin (Ub) pathway involves three sequential enzymatic steps that facilitate the conjugation of Ub and Ub-like molecules to specific protein substrates. The first step requires the ATP-dependent activation of the Ub C-terminus and the assembly of multi-Ub chains by the Ub-activating enzyme known as the E1 component. The Ub chain is then conjugated to the Ub-conjugating enzyme (E2) to generate an intermediate Ub-E2 complex. The Ub-ligase (E3) then catalyzes the transfer of Ub from E2 to the appropriate protein substrate. UBE2E1 and UBE2L3, also designated UBCH6 and UBCH7 respectively in human, are E2 conjugating enzymes that interact with various proteins. Specifically, UBE2E1 interacts with the tumor suppressor protein TSSC5. UBE2L3 has been shown to mediate c-Fos degradation, NF $\kappa$ B maturation, human papilloma virus-mediated p53 and Myc protein degradation.

## REFERENCES

- Nuber, U., Schwarz, S., Kaiser, P., Schneider, R. and Scheffner, M. 1996. Cloning of human ubiquitin-conjugating enzymes UBCH6 and UBCH7 (E2-F1) and characterization of their interaction with E6-AP and RSP5. J. Biol. Chem. 271: 2795-2800.
- Ardley, H.C., Moynihan, T.P., Markham, A.F. and Robinson, P.A. 2000. Promoter analysis of the human ubiquitin-conjugating enzyme including UBE2L3, which encodes UBCH7. Biochim. Biophys. Acta 1491: 57-64.
- Ardley, H.C., Tan, N.G., Rose, S.A., Markham, A.F. and Robinson, P.A. 2001. Features of the parkin/ariadne-like ubiquitin ligase, its interaction with the ubiquitin-conjugating enzyme, UBCH7. J. Biol. Chem. 276: 19640-19647.
- Passmore, L.A. and Barford, D. 2004. Getting into position: the catalytic mechanisms of protein ubiquitylation. Biochem. J. 379: 513-525.
- 5. Kuhlbrodt, K., Mouysset, J. and Hoppe, T. 2005. Orchestra for assembly and fate of polyubiquitin chains. Essays Biochem. 41: 1-14.
- Takeuchi, T., Iwahara, S., Saeki, Y., Sasajima, H. and Yokosawa, H. 2006. Link between the ubiquitin conjugation system and the ISG15 conjugation system: ISG15 conjugation to the UbcH6 ubiquitin E2 enzyme. J. Biol. Chem. 138: 711-719.

#### CHROMOSOMAL LOCATION

Genetic locus: UBE2L3 (human) mapping to 22q11.21; Ube2l3 (mouse) mapping to 16 A3.

#### SOURCE

UBE2L3 (C-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of UBE2L3 of human origin.

## PRODUCT

Each vial contains 200  $\mu g$  lgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-47548 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

#### **APPLICATIONS**

UBE2L3 (C-20) is recommended for detection of UBE2L3 of mouse and human origin by Western Blotting (starting dilution 1:200, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

UBE2L3 (C-20) is also recommended for detection of UBE2L3 in additional species, including equine, canine, bovine, porcine and avian.

Suitable for use as control antibody for UBE2L3 siRNA (h): sc-61746, UBE2L3 siRNA (m): sc-61747, UBE2L3 shRNA Plasmid (h): sc-61746-SH, UBE2L3 shRNA Plasmid (m): sc-61747-SH, UBE2L3 shRNA (h) Lentiviral Particles: sc-61746-V and UBE2L3 shRNA (m) Lentiviral Particles: sc-61747-V.

Molecular Weight of UBE2L3: 17 kDa.

Positive Controls: UBE2L3 (h): 293T Lysate: sc-116434, HeLa whole cell lysate: sc-2200 or Jurkat whole cell lysate: sc-2204.

#### DATA





UBE2L3 (C-20): sc-47549. Western blot analysis of UBE2L3 expression in HeLa (A), NTERA-2 cl.D1 (B), HS 181.Tes (C), F9 (D) and Jurkat (E) whole cell lysates UBE2L3 (C-20): sc-47549. Immunofluorescence staining of methanol-fixed HeLa cells showing nuclear localization  $(\mathbf{A}, \mathbf{B})$ .

## **STORAGE**

Store at 4° C, \*\*D0 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

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

## MONOS Satisfation Guaranteed

Try UBE2L3 (B-11): sc-390032 or UBE2L3 (E-2): sc-390234, our highly recommended monoclonal alternatives to UBE2L3 (C-20).