

UBE2L3 (E-2): sc-390234

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 κ B maturation, human papilloma virus-mediated p53 and Myc protein degradation.

REFERENCES

1. Nuber, U., et al. 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.
2. Ardley, H.C., et al. 2000. Promoter analysis of the human ubiquitin-conjugating enzyme including UBE2L3 which encodes UBCH7. *Biochim. Biophys. Acta* 1491: 57-64.
3. Ardley, H.C., et al. 2001. Features of the parkin/ariadne-like ubiquitin ligase, its interaction with the ubiquitin-conjugating enzyme, UBCH7. *J. Biol. Chem.* 276: 19640-19647.
4. Passmore, L.A. and Barford, D. 2004. Getting into position: the catalytic mechanisms of protein ubiquitylation. *Biochem. J.* 379: 513-525.
5. Kuhlbrodt, K., et al. 2005. Orchestra for assembly and fate of polyubiquitin chains. *Essays Biochem.* 41: 1-14.
6. Takeuchi, T., et al. 2006. Link between the ubiquitin conjugation system and the ISG15 conjugation system: ISG15 conjugation to the UBCH6 ubiquitin E2 enzyme. *J. Biochem.* 138: 711-719.
7. Yamada, H.Y. and Gorbsky, G.J. 2006. Tumor suppressor candidate TSSC5 is regulated by UBCH6 and a novel ubiquitin ligase RING105. *Oncogene* 25: 1330-1339.

CHROMOSOMAL LOCATION

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

SOURCE

UBE2L3 (E-2) is a mouse monoclonal antibody raised against amino acids 1-62 mapping at the N-terminus of UBE2L3 of human origin.

PRODUCT

Each vial contains 200 μ g IgG $_1$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

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

APPLICATIONS

UBE2L3 (E-2) is recommended for detection of UBE2L3 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

UBE2L3 (E-2) is also recommended for detection of UBE2L3 in additional species, including 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.

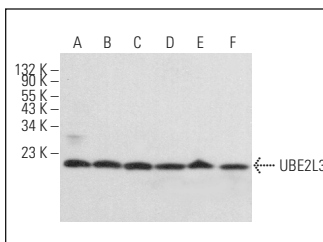
Molecular Weight of UBE2L3: 17 kDa.

Positive Controls: DU 145 cell lysate: sc-2268, F9 cell lysate: sc-2245 or HeLa whole cell lysate: sc-2200.

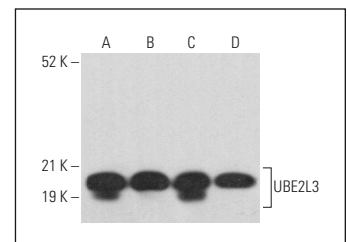
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG κ BP-HRP: sc-516102 or m-IgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-IgG κ BP-FITC: sc-516140 or m-IgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



UBE2L3 (E-2): sc-390234. Western blot analysis of UBE2L3 expression in DU 145 (A), PC-3 (B), Neuro-2A (C), C6 (D), IMR-32 (E) and EOC 20 (F) whole cell lysates.



UBE2L3 (E-2): sc-390234. Western blot analysis of UBE2L3 expression in HeLa (A) and F9 (B) whole cell lysates and human testis (C) and human brain (D) tissue extracts.

SELECT PRODUCT CITATIONS

1. Xu, Z., et al. 2018. 17 β -estradiol inhibits testosterone-induced cell proliferation in Hep G2 by modulating the relative ratios of 3 estrogen receptor isoforms to the androgen receptor. *J. Cell. Biochem.* 119: 8659-8671.

STORAGE

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