

# UBE2L3 (A-5): sc-376517

## 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

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2. 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.
3. 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.
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., Mouysset, J. and Hoppe, T. 2005. Orchestra for assembly and fate of polyubiquitin chains. *Essays Biochem.* 41: 1-14.
6. Takeuchi, T., Iwahara, S., Saeki, Y., Sasajima, H. and Yokosawa, H. 2005. Link between the ubiquitin conjugation system and the ISG15 conjugation system: ISG15 conjugation to the UbcH6 ubiquitin E2 enzyme. *J. Biochem.* 138: 711-719.

## CHROMOSOMAL LOCATION

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

## SOURCE

UBE2L3 (A-5) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 101-139 near the C-terminus of UBE2L3 of human origin.

## PRODUCT

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

Blocking peptide available for competition studies, sc-376517 P, (100  $\mu$ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

## APPLICATIONS

UBE2L3 (A-5) 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  $\mu$ g per 100-500  $\mu$ 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 (A-5) 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.

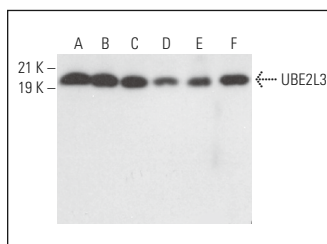
Molecular Weight of UBE2L3: 17 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, F9 cell lysate: sc-2245 or UBE2L3 (m): 293T Lysate: sc-124407.

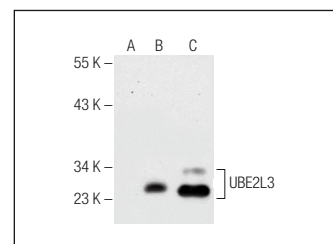
## RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgG $\kappa$  BP-HRP: sc-516102 or m-IgG $\kappa$  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 $\kappa$  BP-FITC: sc-516140 or m-IgG $\kappa$  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 (A-5): sc-376517. Western blot analysis of UBE2L3 expression in HeLa (A), F9 (B), K-562 (C) and HUV-EC-C (D) whole cell lysates and mouse brain (E) and rat testis (F) tissue extracts.



UBE2L3 (A-5): sc-376517. Western blot analysis of UBE2L3 expression in non-transfected 293T: sc-117752 (A), mouse UBE2L3 transfected 293T: sc-124407 (B) and HeLa (C) whole cell lysates.

## 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.