SANTA CRUZ BIOTECHNOLOGY, INC.

UBE2G2 (2E6): sc-100613

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

UBE2G2 (ubiquitin-conjugating enzyme E2 G2), also known as UBC7, is a 165 amino acid protein involved in ubiquitin-mediated protein degradation. Ubiquitination is an important mechanism through which three classes of enzymes act in concert to target short-lived or abnormal proteins for destruction. The three classes of enzymes involved in ubiquitination are the ubiquitin-activating enzymes (E1s), the ubiquitin-conjugating enzymes (E2s) and the ubiquitin-protein ligases (E3s). UBE2G2 is an E2 ubiquitin-conjugating enzyme that acts to catalyze the covalent attachment of ubiquitins to various proteins. Expressed throughout the body, UBE2G2 shares 100% sequence identity with its mouse counterpart and is thought to be involved in endoplasmic reticulum-associated degradation (ERAD). Two isoforms of UBE2G2 exist due to alternative splicing events.

CHROMOSOMAL LOCATION

Genetic locus: UBE2G2 (human) mapping to 21q22.3; Ube2g2 (mouse) mapping to 10 C1.

SOURCE

UBE2G2 (2E6) is a mouse monoclonal antibody raised against recombinant UBE2G2 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

STORAGE

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

PROTOCOLS

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

APPLICATIONS

UBE2G2 (2E6) is recommended for detection of UBE2G2 of mouse, rat 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), 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 UBE2G2 siRNA (h): sc-76788, UBE2G2 siRNA (m): sc-76789, UBE2G2 shRNA Plasmid (h): sc-76788-SH, UBE2G2 shRNA Plasmid (m): sc-76789-SH, UBE2G2 shRNA (h) Lentiviral Particles: sc-76788-V and UBE2G2 shRNA (m) Lentiviral Particles: sc-76789-V.

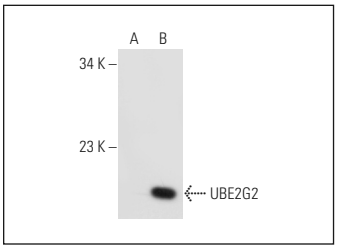
Molecular Weight of UBE2G2: 18 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or UBE2G2 (m): 293T Lysate: sc-124414.

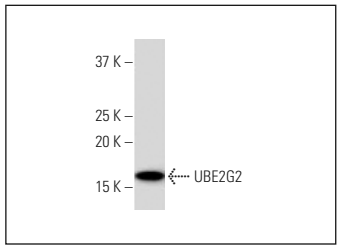
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ 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-IgGκ BP-FITC: sc-516140 or m-IgGκ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850. 4) Immunohistochemistry: use m-IgGκ BP-HRP: sc-516102 with DAB, 50X: sc-24982 and Immunohistomount: sc-45086, or Organo/Limonene Mount: sc-45087.

DATA



UBE2G2 (2E6): sc-100613. Western blot analysis of UBE2G2 expression in non-transfected: sc-117752 (**A**) and mouse UBE2G2 transfected: sc-124414 (**B**) 293T whole cell lysates.



UBE2G2 (2E6): sc-100613. Western blot analysis of UBE2G2 expression in HeLa whole cell lysate.

SELECT PRODUCT CITATIONS

1. Zhong, Y., et al. 2015. Identification of ERAD components essential for dislocation of the null Hong Kong variant of α-1-antitrypsin (NHK). Biochem. Biophys. Res. Commun. 458: 424-428.
2. Kathania, M., et al. 2015. Ndfip1 regulates itch ligase activity and airway inflammation via UbcH7. J. Immunol. 194: 2160-2167.
3. Stefanovic-Barrett, S., et al. 2018. MARCH6 and TRC8 facilitate the quality control of cytosolic and tail-anchored proteins. EMBO Rep. 19: e45603.
4. Menzies, S.A., et al. 2018. The sterol-responsive RNF145 E3 ubiquitin ligase mediates the degradation of HMG-CoA reductase together with gp78 and Hrd1. Elife 7: e40009.
5. Volkmar, N., et al. 2022. Regulation of membrane fluidity by RNF145-triggered degradation of the lipid hydrolase ADIPOR2. EMBO J. E-published.

RESEARCH USE

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