SANTA CRUZ BIOTECHNOLOGY, INC.

UBE2G2 (D-4): sc-393780

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.

REFERENCES

1. Katsanis, N. and Fisher, E.M. 1998. Identification, expression, and chromosomal localization of ubiquitin conjugating enzyme 7 (UBE2G2), a human homologue of the *Saccharomyces cerevisiae* UBC7 gene. Genomics 51: 128-131.
2. Webster, J.M., et al. 2003. Inositol 1,4,5-trisphosphate receptor ubiquitination is mediated by mammalian UBC7, a component of the endoplasmic reticulum-associated degradation pathway, and is inhibited by chelation of intracellular Zn^{2+}. J. Biol. Chem. 278: 38238-38246.

CHROMOSOMAL LOCATION

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

SOURCE

UBE2G2 (D-4) is a mouse monoclonal antibody raised against amino acids 1-64 mapping at the N-terminus of UBE2G2 of human origin.

PRODUCT

Each vial contains 200 µg IgG_1 kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

UBE2G2 (D-4) is available conjugated to agarose (sc-393780 AC), 500 µg/ 0.25 ml agarose in 1 ml, for IP; to HRP (sc-393780 HRP), 200 µg/ml, for WB, IHC(P) and ELISA; to either phycoerythrin (sc-393780 PE), fluorescein (sc-393780 FITC), Alexa Fluor® 488 (sc-393780 AF488), Alexa Fluor® 546 (sc-393780 AF546), Alexa Fluor® 594 (sc-393780 AF594) or Alexa Fluor® 647 (sc-393780 AF647), 200 µg/ml, for WB (RGB), IF, IHC(P) and FCM; and to either Alexa Fluor® 680 (sc-393780 AF680) or Alexa Fluor® 790 (sc-393780 AF790), 200 µg/ml, for Near-Infrared (NIR) WB, IF and FCM.

STORAGE

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

APPLICATIONS

UBE2G2 (D-4) is recommended for detection of UBE2G2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, 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).

UBE2G2 (D-4) is also recommended for detection of UBE2G2 in additional species, including bovine.

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.

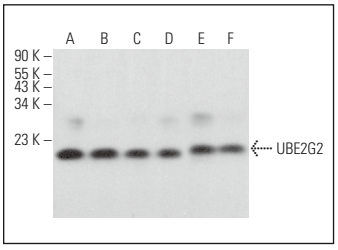
Molecular Weight of UBE2G2: 18 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200, Jurkat whole cell lysate: sc-2204 or Hep G2 cell lysate: sc-2227.

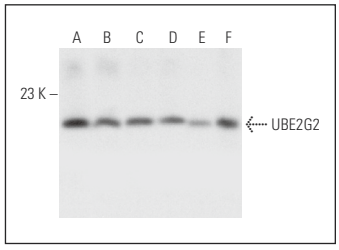
RECOMMENDED SUPPORT REAGENTS

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.

DATA



UBE2G2 (D-4): sc-393780. Western blot analysis of UBE2G2 expression in Raji (**A**), Ramos (**B**), NAMALWA (**C**), BJAB (**D**), WEHI-231 (**E**) and M1 (**F**) whole cell lysates.



UBE2G2 (D-4): sc-393780. Western blot analysis of UBE2G2 expression in HeLa (**A**), Hep G2 (**B**), A549 (**C**) and Jurkat (**D**) whole cell lysates and human testis (**E**) and mouse testis (**F**) tissue extracts.

SELECT PRODUCT CITATIONS

1. Wang, Y., et al. 2020. Cross-talks of glycosylphosphatidylinositol biosynthesis with glycosphingolipid biosynthesis and ER-associated degradation. Nat. Commun. 11: 860.

RESEARCH USE

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