SANTA CRUZ BIOTECHNOLOGY, INC.

UBE2S (F-10): sc-398339

BACKGROUND

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). UBE2S (ubiquitin-conjugating enzyme E2S), also known as EPF5 or E2EPF, is a 222 amino acid protein that belongs to the E2 family of ubiquitin-conjugating enzymes. Involved in the protein degradation pathway, UBE2S catalyzes the ATP-dependent attachment of ubiquitin (Ub) to target proteins, thereby tagging them for subsequent destruction by the proteasome. UBE2S is thought to increase the rate of tumor cell proliferation, invasion and metastasis through the VHL (von Hippel-Lindau) pathway, suggesting a role for UBE2S in carcinogenesis.

REFERENCES

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2. Wefes, I., Mastrandrea, L.D., Haldeman, M., Koury, S.T., Tamburlin, J., Pickart, C.M. and Finley, D. 1995. Induction of ubiquitin-conjugating enzymes during terminal erythroid differentiation. Proc. Natl. Acad. Sci. USA 92: 4982-4986.
3. Online Mendelian Inheritance in Man, OMIM™. 2002. Johns Hopkins University, Baltimore, MD. MIM Number: 610309. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
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5. Jung, C.R., Hwang, K.S., Yoo, J., Cho, W.K., Kim, J.M., Kim, W.H. and Im, D.S. 2006. E2-EPF UCP targets pVHL for degradation and associates with tumor growth and metastasis. Nat. Med. 12: 809-816.

CHROMOSOMAL LOCATION

Genetic locus: UBE2S (human) mapping to 19q13.42; Ube2s (mouse) mapping to 7 A1.

SOURCE

UBE2S (F-10) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 1-22 at the N-terminus of UBE2S 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.

Blocking peptide available for competition studies, sc-398339 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

UBE2S (F-10) is recommended for detection of UBE2S 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).

UBE2S (F-10) is also recommended for detection of UBE2S in additional species, including equine, canine and bovine.

Suitable for use as control antibody for UBE2S siRNA (h): sc-97109, UBE2S siRNA (m): sc-154856, UBE2S shRNA Plasmid (h): sc-97109-SH, UBE2S shRNA Plasmid (m): sc-154856-SH, UBE2S shRNA (h) Lentiviral Particles: sc-97109-V and UBE2S shRNA (m) Lentiviral Particles: sc-154856-V.

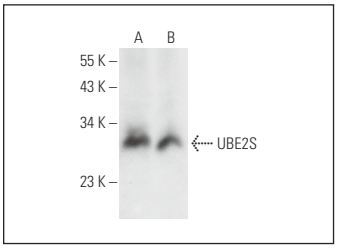
Molecular Weight of UBE2S: 24 kDa.

Positive Controls: Y79 cell lysate: sc-2240 or HL-60 whole cell lysate: sc-2209.

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



UBE2S (F-10): sc-398339. Western blot analysis of UBE2S expression in Y79 (**A**) and HL-60 (**B**) 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.