

UBE2S (P-14): sc-131355

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

- Liu, Z., Diaz, L.A., Haas, A.L. and Giudice, G.J. 1992. cDNA cloning of a novel human ubiquitin carrier protein. An antigenic domain specifically recognized by endemic pemphigus foliaceus autoantibodies is encoded in a secondary reading frame of this human epidermal transcript. *J. Biol. Chem.* 267: 15829-15835.
- 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.
- 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/>
- Marques, A.C., Dupanloup, I., Vinckenbosch, N., Reymond, A. and Kaessmann, H. 2005. Emergence of young human genes after a burst of retroposition in primates. *PLoS Biol.* 3: e357.
- 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 (P-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBE2S of human origin.

PRODUCT

Each vial contains 200 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-131355 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

UBE2S (P-14) is recommended for detection of UBE2S of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), 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).

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.

RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use donkey anti-goat IgG-HRP: sc-2020 (dilution range: 1:2000-1:100,000) or Cruz Marker™ compatible donkey anti-goat IgG-HRP: sc-2033 (dilution range: 1:2000-1:5000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunofluorescence: use donkey anti-goat IgG-FITC: sc-2024 (dilution range: 1:100-1:400) or donkey anti-goat IgG-TR: sc-2783 (dilution range: 1:100-1:400) with UltraCruz™ Mounting Medium: sc-24941.

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.

PROTOCOLS

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


 MONOS
Satisfation
Guaranteed

Try **UBE2S (C-1): sc-390917** or **UBE2S (F-10): sc-398339**, our highly recommended monoclonal alternatives to UBE2S (P-14).