

UBE3C (S-14): sc-165851

BACKGROUND

E3 ubiquitin ligases are a large family of proteins that are engaged in the regulation of the turnover and activity of many target proteins and are classified into three major structurally distinct types: N-end rule E3s, E3s containing the HECT (homology to E6AP C-terminus) domain and E3s with the RING finger. UBE3C (ubiquitin protein ligase E3C), is a 1,083 amino acid nuclear protein that contains one HECT domain and one IQ domain. Existing as three isoforms due to alternative splicing events, UBE3C is highly expressed in skeletal muscle and expressed at much lower levels in kidney and pancreas. UBE3C is a E3 ubiquitin-protein ligase that accepts ubiquitin from UBE2D1 (ubiquitin-conjugating enzyme E2 D1) in the form of a thioester and then directly transfers the ubiquitin to targeted substrates. UBE3C can target itself for ubiquitination *in vitro* and may promote its own degradation *in vivo*.

REFERENCES

1. You, J., et al. 2001. A HECT domain E3 enzyme assembles novel polyubiquitin chains. *J. Biol. Chem.* 276: 19871-19878.
2. Sun, Y. 2003. Targeting E3 ubiquitin ligases for cancer therapy. *Cancer Biol. Ther.* 2: 623-629.
3. You, J., et al. 2003. Proteolytic targeting of transcriptional regulator TIP120B by a HECT domain E3 ligase. *J. Biol. Chem.* 278: 23369-23375.
4. Ardley, H.C., et al. 2005. E3 ubiquitin ligases. *Essays Biochem.* 41: 15-30.
5. Sun, Y. 2005. Overview of approaches for screening for ubiquitin ligase inhibitors. *Meth. Enzymol.* 399: 654-663.
6. Sun, Y. 2006. E3 ubiquitin ligases as cancer targets and biomarkers. *Neoplasia* 8: 645-654.

CHROMOSOMAL LOCATION

Genetic locus: UBE3C (human) mapping to 7q36.3; Ube3c (mouse) mapping to 5 B1.

SOURCE

UBE3C (S-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBE3C 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-165851 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

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 or our catalog for detailed protocols and support products.

APPLICATIONS

UBE3C (S-14) is recommended for detection of UBE3C 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); non cross-reactive with UBE3B.

UBE3C (S-14) is also recommended for detection of UBE3C in additional species, including equine.

Suitable for use as control antibody for UBE3C siRNA (h): sc-89538, UBE3C siRNA (m): sc-154860, UBE3C shRNA Plasmid (h): sc-89538-SH, UBE3C shRNA Plasmid (m): sc-154860-SH, UBE3C shRNA (h) Lentiviral Particles: sc-89538-V and UBE3C shRNA (m) Lentiviral Particles: sc-154860-V.

Molecular Weight of UBE3C: 124 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.

RESEARCH USE

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