SANTA CRUZ BIOTECHNOLOGY, INC.

UBCE7IP4 (Q-15): sc-169737

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). UBCE7IP4 (ubiquitin-conjugating enzyme 7-interacting protein 4), also known as RNF144A (RING finger protein 144A), KIAA0161 or RNF144, is a 292 amino acid single-pass membrane protein that contains one RING-type zinc finger and 2 IBR-type zinc fingers. Functioning as an E3 ubiquitin-protein ligase, UBCE7IP4 accepts ubiquitin (in the form of a thioester) from E2 ubiquitin-conjugating enzymes, such as UBC8 and UBCH7, and transfers that ubiquitin residue to target substrates. Via its RING finger, UBCE7IP4 may play a role in protein-DNA and protein-protein interactions throughout the cell.

REFERENCES

1. Borden, K.L. and Freemont, P.S. 1996. The RING finger domain: a recent example of a sequence-structure family. Curr. Opin. Struct. Biol. 6: 395-401.
2. Nagase, T., Seki, N., Ishikawa, K., Tanaka, A. and Nomura, N. 1996. Prediction of the coding sequences of unidentified human genes. V. The coding sequences of 40 new genes (KIAA0161-KIAA0200) deduced by analysis of cDNA clones from human cell line KG-1. DNA Res. 3: 17-24.
3. Martinez-Noel, G., Niedenthal, R., Tamura, T. and Harbers, K. 1999. A family of structurally related RING finger proteins interacts specifically with the ubiquitin-conjugating enzyme UbcM4. FEBS Lett. 454: 257-261.
4. Lorick, K.L., Jensen, J.P., Fang, S., Ong, A.M., Hatakeyama, S. and Weissman, A.M. 1999. RING fingers mediate ubiquitin-conjugating enzyme (E2)-dependent ubiquitination. Proc. Natl. Acad. Sci. USA 96: 11364-11369.
5. Hoja, M.R., Wahlestedt, C. and Höög, C. 2000. A visual intracellular classification strategy for uncharacterized human proteins. Exp. Cell Res. 259: 239-246.

CHROMOSOMAL LOCATION

Genetic locus: RNF144A (human) mapping to 2p25.2; Rnf144a (mouse) mapping to 12 A2.

SOURCE

UBCE7IP4 (Q-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of UBCE7IP4 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-169737 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

Available as TransCruz reagent for Gel Supershift and ChIP applications, sc-169737 X, 200 µg/0.1 ml.

APPLICATIONS

UBCE7IP4 (Q-15) is recommended for detection of UBCE7IP4 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).

UBCE7IP4 (Q-15) is also recommended for detection of UBCE7IP4 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for UBCE7IP4 siRNA (h): sc-94470, UBCE7IP4 siRNA (m): sc-154845, UBCE7IP4 shRNA Plasmid (h): sc-94470-SH, UBCE7IP4 shRNA Plasmid (m): sc-154845-SH, UBCE7IP4 shRNA (h) Lentiviral Particles: sc-94470-V and UBCE7IP4 shRNA (m) Lentiviral Particles: sc-154845-V.

UBCE7IP4 (Q-15) X TransCruz antibody is recommended for Gel Supershift and ChIP applications.

Molecular Weight of UBCE7IP4: 33 kDa.

Positive Controls: HeLa whole cell lysate: sc-2200 or CHO whole cell lysate.

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.