SANTA CRUZ BIOTECHNOLOGY, INC.

HEI10 (W-15): sc-74661

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

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). HEI10 (human enhancer of invasion 10), also known as CCNB1IP1 (cyclin B1 interacting protein 1), is a 277 amino acid protein that localizes to the nucleus and contains one RING-type zinc finger. Expressed at high levels in heart and present at lower levels in kidney, liver, brain, lung and placenta, HEI10 functions as an E3 ubiquitin-protein ligase that modulates cyclin B levels and plays an important role in proper cell cycle progression. HEI10 is subject to post-translational modification, including ubiquitination and phosphorylation.

REFERENCES

1. Mine, N., et al. 2001. Fusion of a sequence from HEI10 (14q11) to the HMGIC gene at 12q15 in a uterine leiomyoma. Jpn. J. Cancer Res. 92: 135-139.
2. Toby, G.G., et al. 2003. A novel RING finger protein, human enhancer of invasion 10, alters mitotic progression through regulation of cyclin B levels. Mol. Cell. Biol. 23: 2109-2122.
3. Online Mendelian Inheritance in Man, OMIM™. 2004. Johns Hopkins University, Baltimore, MD. MIM Number: 608249. World Wide Web URL: http://www.ncbi.nlm.nih.gov/omim/
4. Grönholm, M., et al. 2006. A functional association between merlin and HEI10, a cell cycle regulator. Oncogene 25: 4389-4398.
5. Singh, M.K., et al. 2007. HEI10 negatively regulates cell invasion by inhibiting cyclin B/Cdk1 and other promotility proteins. Oncogene 26: 4825-4832.
6. Ward, J.O., et al. 2007. Mutation in mouse hei10, an e3 ubiquitin ligase, disrupts meiotic crossing over. PLoS Genet. 3: e139.

CHROMOSOMAL LOCATION

Genetic locus: CCNB1IP1 (human) mapping to 14q11.2; Ccnb1ip1 (mouse) mapping to 14 C1.

SOURCE

HEI10 (W-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HEI10 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-74661 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.

APPLICATIONS

HEI10 (W-15) is recommended for detection of HEI10 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).

HEI10 (W-15) is also recommended for detection of HEI10 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HEI10 siRNA (h): sc-75238, HEI10 siRNA (m): sc-75239, HEI10 shRNA Plasmid (h): sc-75238-SH, HEI10 shRNA Plasmid (m): sc-75239-SH, HEI10 shRNA (h) Lentiviral Particles: sc-75238-V and HEI10 shRNA (m) Lentiviral Particles: sc-75239-V.

Molecular Weight of HEI10: 32 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.

PROTOCOLS

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