SANTA CRUZ BIOTECHNOLOGY, INC.

HICE1 (Q-14): sc-240746

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Mitotic spindle integrity is critical for efficient mitotic progression and accurate chromosome segregation. HICE1 (Hec1-interacting and centrosome-associated 1), also known as NY-SAR-48 or HAUS8, is a 410 amino acid evolutionarily nonconserved cytoplasmic coiled-coil protein required for chromosomal integrity and stability of mitotic spindles. HICE1 is a component of the HAUS augmin-like complex, which is involved in the regulation of mitotic spindle assembly and centrosome stability. During interphase, HICE1 associates with centrosomes and with the mitotic spindles at the spindle pole vincinity. HICE1 also associates with the spindle midzone during anaphase and with the spindle midbody during telephase. Existing as two alternatively spliced isoforms, HICE1 is considered a novel microtubule-associated protein required for proper completion of cytokinesis.

REFERENCES

1. Goshima, G., et al. 2008. Augmin: a protein complex required for centrosome-independent microtubule generation within the spindle. J. Cell Biol. 181: 421-429.
2. Wu, G., et al. 2008. HICE1, a novel microtubule-associated protein required for maintenance of spindle integrity and chromosomal stability in human cells. Mol. Cell. Biol. 28: 3652-3662.
3. Lawo, S., et al. 2009. HAUS, the 8-subunit human Augmin complex, regulates centrosome and spindle integrity. Curr. Biol. 19: 816-826.
4. Wu, G., et al. 2009. Hec1 contributes to mitotic centrosomal microtubule growth for proper spindle assembly through interaction with HICE1. Mol. Biol. Cell. 20: 4686-4695.
5. Samoshkin, A., et al. 2009. Human condensin function is essential for centromeric chromatin assembly and proper sister kinetochore orientation. PLoS ONE 4: e6831.
6. Uehara, R., et al. 2009. The augmin complex plays a critical role in spindle microtubule generation for mitotic progression and cytokinesis in human cells. Proc. Natl. Acad. Sci. USA 106: 6998-7003.

CHROMOSOMAL LOCATION

Genetic locus: HAUS8 (human) mapping to 19p13.11.

SOURCE

HICE1 (Q-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the C-terminus of HICE1 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-240746 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

HICE1 (Q-14) is recommended for detection of HICE1 of 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 HICE1 siRNA (h): sc-97388, HICE1 shRNA Plasmid (h): sc-97388-SH and HICE1 shRNA (h) Lentiviral Particles: sc-97388-V.

Molecular Weight of HICE1: 46 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.