

HAUS3 (D-20): sc-240551

BACKGROUND

The human augmin complex (HAUS) is an evolutionarily conserved 8-subunit protein complex that was initially discovered in *Drosophila*. The HAUS complex is essential for microtubule generation, centrosome integrity, mitotic spindle assembly and completion of cytokinesis. HAUS3 (HAUS augmin-like complex subunit 3), also known as C4orf15, is a 603 amino acid cytoplasmic protein belonging to the HAUS3 family. As part of the HAUS complex, HAUS3 participates in the maintenance of centrosome integrity, mitotic spindle assembly and completion of cytokinesis. The HAUS complex is required for spindle assembly via interactions with the γ -tubulin ring complex. Silencing of the gene encoding HAUS3 leads to a reduced γ -tubulin signal. HAUS3 localizes to the metaphase spindle and accumulates at the centrosome during interphase.

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. Lawo, S., et al. 2009. HAUS, the 8-subunit human Augmin complex, regulates centrosome and spindle integrity. *Curr. Biol.* 19: 816-826.
3. Shah, S.P., et al. 2009. Mutational evolution in a lobular breast tumour profiled at single nucleotide resolution. *Nature* 461: 809-813.
4. 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.
5. Du, L., et al. 2011. Rumba and Haus3 are essential factors for the maintenance of hematopoietic stem/progenitor cells during zebrafish hematopoiesis. *Development* 138: 619-629.

CHROMOSOMAL LOCATION

Genetic locus: HAUS3 (human) mapping to 4p16.3; Haus3 (mouse) mapping to 5 B2.

SOURCE

HAUS3 (D-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HAUS3 of human origin.

PRODUCT

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

Blocking peptide available for competition studies, sc-240551 P, (100 μ g 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

HAUS3 (D-20) is recommended for detection of HAUS3 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).

HAUS3 (D-20) is also recommended for detection of HAUS3 in additional species, including equine, bovine and porcine.

Suitable for use as control antibody for HAUS3 siRNA (h): sc-89186, HAUS3 siRNA (m): sc-141532, HAUS3 shRNA Plasmid (h): sc-89186-SH, HAUS3 shRNA Plasmid (m): sc-141532-SH, HAUS3 shRNA (h) Lentiviral Particles: sc-89186-V and HAUS3 shRNA (m) Lentiviral Particles: sc-141532-V.

Molecular Weight of HAUS3: 70 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.