SANTA CRUZ BIOTECHNOLOGY, INC.

HOOK1 (S-20): sc-49975

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Microtubules mediate the spatial organization of diverse membrane-trafficking systems. The HOOK proteins, HOOK1, HOOK2 and HOOK3, comprise a family of cytosolic coiled-coil proteins that contain conserved N-terminal domains, which attach to microtubules; and more divergent C-terminal domains, which mediate binding to organelles. HOOK1, a cytoskeletal linker protein, may play a role in endocytic membrane trafficking. HOOK1 exists as a homodimer, most likely mediated through its central coiled-coil domain. HOOK1 interacts with VPS18. HOOK1 is required for spermatid differentiation, in which it is most likely involved in the positioning of the manchette microtubules and the flagellum. It localizes primarily to the cytoplasm and does not associate with the golgi complex, unlike HOOK3 that participates in the organization of the *cis*-Golgi compartment.

REFERENCES

1. Luiro, K., et al. 2004. Interconnections of CLN3, HOOK1 and Rab proteins link Batten disease to defects in the endocytic pathway. Hum. Mol. Genet. 13: 3017-3027.
2. Weimer, J.M., et al. 2005. Elevation of HOOK1 in a disease model of Batten disease does not affect a novel interaction between Ankyrin G and HOOK1. Biochem. Biophys. Res. Commun. 330: 1176-1181.

CHROMOSOMAL LOCATION

Genetic locus: HOOK1 (human) mapping to 1p32.1; Hook1 (mouse) mapping to 4 C5.

SOURCE

HOOK1 (S-20) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of HOOK1 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-49975 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

HOOK1 (S-20) is recommended for detection of HOOK1 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).

HOOK1 (S-20) is also recommended for detection of HOOK1 in additional species, including equine, canine, bovine and porcine.

Suitable for use as control antibody for HOOK1 siRNA (h): sc-60796, HOOK1 siRNA (m): sc-60797, HOOK1 shRNA Plasmid (h): sc-60796-SH, HOOK1 shRNA Plasmid (m): sc-60797-SH, HOOK1 shRNA (h) Lentiviral Particles: sc-60796-V and HOOK1 shRNA (m) Lentiviral Particles: sc-60797-V.

Molecular Weight of HOOK1: 84 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.

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.