

HOOK1 (JA.25): sc-130453

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. 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.
3. Simpson, Martin, S., Evans T.M., Kerr, M., James, D.E., Parton, R.G., Teasdale, R.D. and Wicking, C., 2005. A novel HOOK-related protein family and the characterization of HOOK-related protein 1. *Traffic* 6: 442-458.

CHROMOSOMAL LOCATION

Genetic locus: HOOK1 (human) mapping to 1p32.1.

SOURCE

HOOK1 (JA.25) is a mouse monoclonal antibody raised against recombinant HOOK1 of human origin.

PRODUCT

Each vial contains 100 µg IgG_{2a} kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

RESEARCH USE

For research use only, not for use in diagnostic procedures.

APPLICATIONS

HOOK1 (JA.25) is recommended for detection of HOOK1 of human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000) and immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)].

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

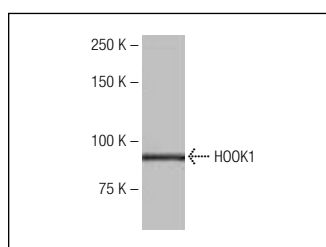
Molecular Weight of HOOK1: 84 kDa.

Positive Controls: MCF7 whole cell lysate: sc-2206.

RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-IgGκ BP-HRP: sc-516102 or m-IgGκ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz Marker™ Molecular Weight Standards: sc-2035, TBS Blotto A Blocking Reagent: sc-2333 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml).

DATA



HOOK1 (JA.25): sc-130453. Western blot analysis of HOOK1 expression in MCF7 whole cell lysate

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 for detailed protocols and support products.