HOOK2 (E-3): sc-374169



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. HOOK2 (also known as HK2) is 719 amino acids in length. It exists as a homodimer, most likely mediated through its central coiled-coil domain. HOOK2 may associate with SURF1 and Zic2, and all three may be potential esophageal cancer tumor antigens. HOOK2 expression is strong in the larynx and the esophagus. Unlike HOOK3, which localizes to the Golgi, HOOK2 localizes to discrete subcellular structures not corresponding to early or late endosomes, mitochondria, Golgi complex, endoplasmic reticulum, lysosomes or multivesicular bodies.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: HOOK2 (human) mapping to 19p13.2; Hook2 (mouse) mapping to 8 C3.

SOURCE

HOOK2 (E-3) is a mouse monoclonal antibody specific for an epitope mapping between amino acids 151-185 within an internal region of HOOK2 of human origin.

PRODUCT

Each vial contains 200 $\mu g \; lgG_{2b}$ kappa light chain in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-374169 P, (100 μ g peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% stabilizer protein).

APPLICATIONS

H00K2 (E-3) is recommended for detection of H00K2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:100-1:1000), immunoprecipitation [1-2 μ g per 100-500 μ g of total protein (1 ml of cell lysate)], 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 HOOK2 siRNA (h): sc-60798, HOOK2 siRNA (m): sc-60799, HOOK2 shRNA Plasmid (h): sc-60798-SH, HOOK2 shRNA Plasmid (m): sc-60799-SH, HOOK2 shRNA (h) Lentiviral Particles: sc-60798-V and HOOK2 shRNA (m) Lentiviral Particles: sc-60799-V.

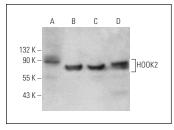
Molecular Weight of HOOK2: 83 kDa.

Positive Controls: human esophagus extract: sc-363760, EOC 20 whole cell lysate: sc-364187 or c4 whole cell lysate: sc-364186.

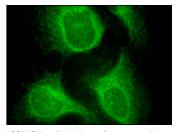
RECOMMENDED SUPPORT REAGENTS

To ensure optimal results, the following support reagents are recommended: 1) Western Blotting: use m-lgG κ BP-HRP: sc-516102 or m-lgG κ BP-HRP (Cruz Marker): sc-516102-CM (dilution range: 1:1000-1:10000), Cruz MarkerTM Molecular Weight Standards: sc-2035, UltraCruz® Blocking Reagent: sc-516214 and Western Blotting Luminol Reagent: sc-2048. 2) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) Immunofluorescence: use m-lgG κ BP-FITC: sc-516140 or m-lgG κ BP-PE: sc-516141 (dilution range: 1:50-1:200) with UltraCruz® Mounting Medium: sc-24941 or UltraCruz® Hard-set Mounting Medium: sc-359850.

DATA



HOOK2 (E-3): sc-374169. Western blot analysis of HOOK2 expression in human esophagus tissue extract (**A**) and EOC 20 (**B**), c4 (**C**) and HeLa (**D**) whole cell lysates.



HOOK2 (E-3): sc-374169. Immunofluorescence staining of methanol-fixed HeLa cells showing cytoplasmic localization.

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 for detailed protocols and support products.