SANTA CRUZ BIOTECHNOLOGY, INC.

CEP41 (P-12): sc-138202

SANTA CRUZ BIOTECHNOLOGY

The Power to Question

BACKGROUND

Centrosomes are the major microtubule-organizing centers of mammalian cells. They are composed of a centriole pair and surrounding microtubule-nucleating material termed pericentriolar material (PCM). Bipolar mitotic spindle assembly relies on two intertwined processes: centriole duplication and centrosome maturation. Failure to properly orchestrate centrosome duplication and maturation is subsequently linked to spindle defects, which can result in aneuploidy and promote cancer progression. The CEP41 (centrosomal protein of 41 kDa) gene encodes a protein of 373 amino acids that is alternatively spliced into 4 isoforms. Isoforms 1 and 4 are expressed in testis and fetal brain and liver.

REFERENCES

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5. Pelletier, L., O'Toole, E., Schwager, A., Hyman, A.A. and Müller-Reichert, T. 2006. Centriole assembly in *Caenorhabditis elegans*. Nature 444: 619-623.
6. Zhu, F., Lawo, S., Bird, A., Pinchev, D., Ralph, A., Richter, C., Müller-Reichert, T., Kittler, R., Hyman, A.A. and Pelletier, L. 2008. The mammalian SPD-2 ortholog Cep192 regulates centrosome biogenesis. Curr. Biol. 18: 136-141.

CHROMOSOMAL LOCATION

Genetic locus: TSGA14 (human) mapping to 7q32.2; Tsga14 (mouse) mapping to 6 A3.3.

SOURCE

CEP41 (P-12) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CEP41 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-138202 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

CEP41 (P-12) is recommended for detection of CEP41 isoforms 3 and L-type 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); non cross-reactive with CEP41 isoforms 2 or S-type; non cross-reactive with other CEP family members.

Suitable for use as control antibody for CEP41 siRNA (h): sc-89402, CEP41 siRNA (m): sc-142283, CEP41 shRNA Plasmid (h): sc-89402-SH, CEP41 shRNA Plasmid (m): sc-142283-SH, CEP41 shRNA (h) Lentiviral Particles: sc-89402-V and CEP41 shRNA (m) Lentiviral Particles: sc-142283-V.

Molecular Weight of CEP41: 41 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.