

CEP70 (E-15): sc-99846

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 CEP70 (centrosomal protein of 70 kDa) gene encodes a protein of 597 amino acids that is alternatively spliced into 3 isoforms. The CEP70 protein contains one tetratricopeptide (TPR) repeat, suggesting that it may bind to other polypeptides.

REFERENCES

1. Lange, B.M., Faragher, A.J., March, P. and Gull, K. 2000. Centriole duplication and maturation in animal cells. *Curr. Top. Dev. Biol.* 49: 235-249.
2. Palazzo, R.E., Vogel, J.M., Schnackenberg, B.J., Hull, D.R. and Wu, X. 2000. Centrosome maturation. *Curr. Top. Dev. Biol.* 49: 449-470.
3. Smith, D.F. 2004. Tetratricopeptide repeat cochaperones in steroid receptor complexes. *Cell Stress Chaperones* 9: 109-121.
4. Pelletier, L., O'Toole, E., Schwager, A., Hyman, A.A. and Müller-Reichert, T. 2006. Centriole assembly in *Caenorhabditis elegans*. *Nature* 444: 619-623.
5. 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.
6. UniProtKB/Swiss-Prot (Q8NHQ1). World Wide Web URL: <http://www.uniprot.org/uniprot/Q8NHQ1>

CHROMOSOMAL LOCATION

Genetic locus: CEP70 (human) mapping to 3q22.3; Cep70 (mouse) mapping to 9 E3.3.

SOURCE

CEP70 (E-15) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CEP70 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-99846 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.

RESEARCH USE

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

APPLICATIONS

CEP70 (E-15) is recommended for detection of CEP70 of mouse, rat and human origin by Western Blotting (starting dilution 1:200, dilution range 1:100-1:1000), immunoprecipitation [1-2 µg per 100-500 µg 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); non cross-reactive with other CEP family members.

Suitable for use as control antibody for CEP70 siRNA (h): sc-78341, CEP70 siRNA (m): sc-142288, CEP70 shRNA Plasmid (h): sc-78341-SH, CEP70 shRNA Plasmid (m): sc-142288-SH, CEP70 shRNA (h) Lentiviral Particles: sc-78341-V and CEP70 shRNA (m) Lentiviral Particles: sc-142288-V.

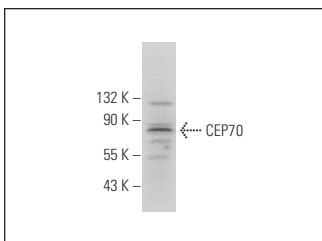
Molecular Weight of CEP70: 70 kDa.

Positive Controls: WiDR cell lysate: sc-24779.

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) Immunoprecipitation: use Protein A/G PLUS-Agarose: sc-2003 (0.5 ml agarose/2.0 ml). 3) 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.

DATA



CEP70 (E-15): sc-99846. Western blot analysis of CEP70 expression in WiDR whole cell lysate.

PROTOCOLS

See our web site at www.scbt.com or our catalog for detailed protocols and support products.