

CEP68 (D-16): sc-167455

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. CEP68 (centrosomal protein of 68 kDa) is a 757 amino acid protein that interacts with Rootletin and C-Nap1 to modulate centrosomal cohesion. There are two isoforms of CEP68 that are produced as a result of alternative splicing events.

REFERENCES

1. Lange, B.M., et al. 2000. Centriole duplication and maturation in animal cells. *Curr. Top. Dev. Biol.* 49: 235-249.
2. Palazzo, R.E., et al. 2000. Centrosome maturation. *Curr. Top. Dev. Biol.* 49: 449-470.
3. Yamada, T., et al. 2002. The gene TSGA14, adjacent to the imprinted gene MEST, escapes genomic imprinting. *Gene* 288: 57-63.
4. Yamada, T., et al. 2004. Imprinting analysis of 10 genes and/or transcripts in a 1.5-Mb MEST-flanking region at human chromosome 7q32. *Genomics* 83: 402-412.
5. Pelletier, L., et al. 2006. Centriole assembly in *Caenorhabditis elegans*. *Nature* 444: 619-623.
6. Graser, S., et al. 2007. Cep68 and Cep215 (Cdk5rap2) are required for centrosome cohesion. *J. Cell Sci.* 120: 4321-4331.
7. Zhu, F., et al. 2008. The mammalian SPD-2 ortholog Cep192 regulates centrosome biogenesis. *Curr. Biol.* 18: 136-141.
8. Hamada, T., et al. 2009. Changing modified regions in the genome in hematopoietic stem cell differentiation. *Biochem. Biophys. Res. Commun.* 381: 135-138.

CHROMOSOMAL LOCATION

Genetic locus: CEP68 (human) mapping to 2p14; Cep68 (mouse) mapping to 11 A3.1.

SOURCE

CEP68 (D-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CEP68 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-167455 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

RESEARCH USE

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

APPLICATIONS

CEP68 (D-16) is recommended for detection of CEP68 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 other CEP family members.

CEP68 (D-16) is also recommended for detection of CEP68 in additional species, including equine, canine and porcine.

Suitable for use as control antibody for CEP68 siRNA (h): sc-94806, CEP68 siRNA (m): sc-142287, CEP68 shRNA Plasmid (h): sc-94806-SH, CEP68 shRNA Plasmid (m): sc-142287-SH, CEP68 shRNA (h) Lentiviral Particles: sc-94806-V and CEP68 shRNA (m) Lentiviral Particles: sc-142287-V.

Molecular Weight of CEP68 isoform 1: 81 kDa.

Molecular Weight of CEP68 isoform 2: 67 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.

PROTOCOLS

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