

CEP120 (Y-16): sc-242421



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. CEP120 (centrosomal protein 120), also known as CCDC100 (coiled-coil domain-containing protein 100), is a 986 amino acid protein that is involved in the microtubule-dependent coupling of the nucleus and the centrosome. Existing as three alternatively spliced isoforms, CEP120 is thought to participate in centriole duplication during mitosis and interacts with TACC2 and TACC3.

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. Ou, Y., Zhang, M. and Rattner, J.B. 2004. The centrosome: The centriole-PCM coalition. *Cell Motil. Cytoskeleton* 57: 1-7.
3. Guerrier, S. and Polleux, F. 2007. The ups and downs of neural progenitors: CEP120 and TACCs control interkinetic nuclear migration. *Neuron* 56: 1-3.
4. Xie, Z., Moy, L.Y., Sanada, K., Zhou, Y., Buchman, J.J. and Tsai, L.H. 2007. CEP120 and TACCs control interkinetic nuclear migration and the neural progenitor pool. *Neuron* 56: 79-93.
5. Hutchins, J.R., Toyoda, Y., Hegemann, B., Poser, I., Hériché, J.K., Sykora, M.M., Augsburg, M., Hudecz, O., Buschhorn, B.A., Bulkescher, J., Conrad, C., Comartin, D., Schleiffer, A., Sarov, M., Pozniakovskiy, A., et al. 2010. Systematic analysis of human protein complexes identifies chromosome segregation proteins. *Science* 328: 593-599.
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CHROMOSOMAL LOCATION

Genetic locus: CEP120 (human) mapping to 5q23.2; Cep120 (mouse) mapping to 18 D1.

SOURCE

CEP120 (Y-16) is an affinity purified goat polyclonal antibody raised against a peptide mapping within an internal region of CEP120 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-242421 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

CEP120 (Y-16) is recommended for detection of CEP120 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), immunohistochemistry (including paraffin-embedded sections) (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.

CEP120 (Y-16) is also recommended for detection of CEP120 in additional species, including equine, canine, bovine, porcine and avian.

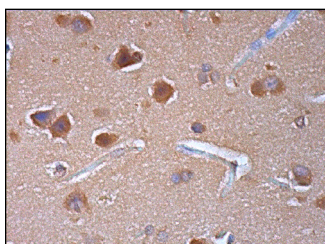
Suitable for use as control antibody for CEP120 siRNA (h): sc-91885, CEP120 siRNA (m): sc-142043, CEP120 shRNA Plasmid (h): sc-91885-SH, CEP120 shRNA Plasmid (m): sc-142043-SH, CEP120 shRNA (h) Lentiviral Particles: sc-91885-V and CEP120 shRNA (m) Lentiviral Particles: sc-142043-V.

Molecular Weight of CEP120 isoforms: 113/110/43 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. 3) Immunohistochemistry: use ImmunoCruz™: sc-2053 or ABC: sc-2023 goat IgG Staining Systems.

DATA



CEP120 (Y-16): sc-242421. Immunoperoxidase staining of formalin fixed, paraffin-embedded human cerebral cortex tissue showing cytoplasmic staining of neuronal cells and glial cells.

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.