

CEP164 (N-14): sc-240226

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). CEP164 (centrosomal protein 164 kDa) is a 1460 amino acid protein that is expressed in several cell lines. CEP164 localizes to the nucleus as well as the centrosome and may be involved in microtubule organization and maintenance for the formation of primary cilia. It is suggested that CEP164 is a key player in the DNA damage-activated ATR/ATM signaling cascade and is required for the proper phosphorylation of Histone H2A.X, RPA proteins, Chk2 and Chk1. CEP164 plays a critical role in G₂/M checkpoint, nuclear divisions and in chromosome segregation. CEP164 is phosphorylated upon replication stress, ultraviolet radiation (UV), and ionizing radiation (IR). Two isoforms exist due to alternative splicing events.

REFERENCES

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CHROMOSOMAL LOCATION

Genetic locus: CEP164 (human) mapping to 11q23.3; Cep164 (mouse) mapping to 9 A5.2.

SOURCE

CEP164 (N-14) is an affinity purified goat polyclonal antibody raised against a peptide mapping near the N-terminus of CEP164 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-240226 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

APPLICATIONS

CEP164 (N-14) is recommended for detection of CEP164 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.

Suitable for use as control antibody for CEP164 siRNA (h): sc-96897, CEP164 siRNA (m): sc-142279, CEP164 shRNA Plasmid (h): sc-96897-SH, CEP164 shRNA Plasmid (m): sc-142279-SH, CEP164 shRNA (h) Lentiviral Particles: sc-96897-V and CEP164 shRNA (m) Lentiviral Particles: sc-142279-V.

Molecular Weight of CEP164: 164 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.

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.


 MONOS
Satisfaction
Guaranteed

Try **CEP164 (E-9): sc-515403**, our highly recommended monoclonal alternative to CEP164 (N-14).