

# CP110 (N-14): sc-136629

## BACKGROUND

Centrosome duplication and separation are linked inextricably to certain cell cycle events, specifically, activation of cyclin-dependent kinases of cyclin-dependent kinases. CP110 (centrosomal protein of 110 kDa) is a 991 amino acid cell cycle-dependent Cdk substrate that regulates centrosome duplication. Localizing to the centrosome, CP110 contains ten putative Cdk2 phosphorylation sites, two cyclin-binding domains and two degradation motifs. CP110 is highly expressed in testis with much lower expression in all other tissues. CP110 interacts with Ca<sup>2+</sup>-binding proteins including calmodulin (CaM) and centrin, to regulate genome stability and progression through cytokinesis. During the formation of cylindrical centrioles, it is suggested that CP110 acts as a distal end-capping protein thereby limiting the elongation of newly formed centrioles. Existing as two alternatively spliced isoforms, CP110 is observed at highest levels during the S phase of the cell cycle. CP110 becomes phosphorylated by Cdks (cyclin-dependent kinases) and is encoded by a gene located on human chromosome 16p12.3.

## REFERENCES

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## CHROMOSOMAL LOCATION

Genetic locus: CP110 (human) mapping to 16p12.3; 6330503K22Rik (mouse) mapping to 7 F2.

## SOURCE

CP110 (N-14) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the N-terminus of CP110 of human origin.

## PRODUCT

Each vial contains 100 µg IgG in 1.0 ml of PBS with < 0.1% sodium azide and 0.1% gelatin.

Blocking peptide available for competition studies, sc-136629 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CP110 (N-14) is recommended for detection of CP110 isoforms 1 and 2 of mouse, rat and human origin by Western Blotting (starting dilution 1:100, dilution range 1:50-1:500), immunoprecipitation [1-2 µg per 100-500 µg of total protein (1 ml of cell lysate)], immunofluorescence (starting dilution 1:25, dilution range 1:25-1:250) and solid phase ELISA (starting dilution 1:30, dilution range 1:30-1:3000).

Suitable for use as control antibody for CP110 siRNA (h): sc-93533, CP110 siRNA (m): sc-142536, CP110 shRNA Plasmid (h): sc-93533-SH, CP110 shRNA Plasmid (m): sc-142536-SH, CP110 shRNA (h) Lentiviral Particles: sc-93533-V and CP110 shRNA (m) Lentiviral Particles: sc-142536-V.

Molecular Weight of CP110: 113 kDa.

## RECOMMENDED SECONDARY REAGENTS

To ensure optimal results, the following support (secondary) reagents are recommended: 1) Western Blotting: use goat anti-rabbit IgG-HRP: sc-2004 (dilution range: 1:2000-1:100,000) or Cruz Marker<sup>™</sup> compatible goat anti-rabbit IgG-HRP: sc-2030 (dilution range: 1:2000-1:5000), Cruz Marker<sup>™</sup> 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 goat anti-rabbit IgG-FITC: sc-2012 (dilution range: 1:100-1:400) or goat anti-rabbit IgG-TR: sc-2780 (dilution range: 1:100-1:400) with UltraCruz<sup>™</sup> 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](http://www.scbt.com) or our catalog for detailed protocols and support products.