SANTA CRUZ BIOTECHNOLOGY, INC.

# CP110 (Q-12): sc-136630

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*The Power to Question*

## 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 $Ca^{2+}$-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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3. Tsang, W.Y., Spektor, A., Luciano, D.J., Indjeian, V.B., Chen, Z., Salisbury, J.L., Sánchez, I. and Dynlacht, B.D. 2006. CP110 cooperates with two calcium-binding proteins to regulate cytokinesis and genome stability. Mol. Biol. Cell 17: 3423-3434.
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## CHROMOSOMAL LOCATION

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

## SOURCE

CP110 (Q-12) is an affinity purified rabbit polyclonal antibody raised against a peptide mapping near the C-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-136630 P, (100 µg peptide in 0.5 ml PBS containing < 0.1% sodium azide and 0.2% BSA).

## APPLICATIONS

CP110 (Q-12) 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), 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™ compatible goat anti-rabbit IgG-HRP: sc-2030 (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 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™ 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.