

**CCP110 Antibody**  
Catalog # ASC11478**Specification****CCP110 Antibody - Product Information**

Application	IF
Primary Accession	<a href="#">O43303</a>
Other Accession	<a href="#">NP_001185951</a> , <a href="#">9738</a>
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Isotype	IgG
Application Notes	CCP110 antibody can be used for detection of CCP110 by Western blot at 1 µg/mL. Antibody can also be used for immunohistochemistry starting at 5 µg/mL. For immunofluorescence start at 5 µg/mL.

**CCP110 Antibody - Additional Information**Gene ID **9738****Target/Specificity**

CCP110 antibody was raised against a 17 amino acid synthetic peptide near the carboxy terminus of human CCP110. The immunogen is located within the last 50 amino acids of CCP110.

**Reconstitution & Storage**

CCP110 antibody can be stored at 4°C for three months and -20°C, stable for up to one year. As with all antibodies care should be taken to avoid repeated freeze thaw cycles. Antibodies should not be exposed to prolonged high temperatures.

**Precautions**

CCP110 Antibody is for research use only and not for use in diagnostic or therapeutic procedures.

**CCP110 Antibody - Protein Information**

Name CCP110

Synonyms CEP110, CP110, KIAA0419

**Function**

Necessary for centrosome duplication at different stages of procentriole formation. Acts as a key negative regulator of ciliogenesis in collaboration with CEP97 by capping the mother centriole thereby preventing cilia formation (PubMed: [17681131](http://www.uniprot.org/citations/17681131) target="\_blank">17681131</a>, PubMed: [17719545](http://www.uniprot.org/citations/17719545) target="\_blank">17719545</a>, PubMed: [23486064](http://www.uniprot.org/citations/23486064) target="\_blank">23486064</a>, PubMed: [30375385](http://www.uniprot.org/citations/30375385) target="\_blank">30375385</a>, PubMed: [35301795](http://www.uniprot.org/citations/35301795) target="\_blank">35301795</a>). Also involved in promoting ciliogenesis. May play a role in the

assembly of the mother centriole subdistal appendages (SDA) thereby effecting the fusion of recycling endosomes to basal bodies during cilia formation (By similarity). Required for correct spindle formation and has a role in regulating cytokinesis and genome stability via cooperation with CALM1 and CETN2 (PubMed:<a href="http://www.uniprot.org/citations/16760425" target="\_blank">16760425</a>).

#### Cellular Location

Cytoplasm, cytoskeleton, microtubule organizing center, centrosome, centriole. Cytoplasm, cytoskeleton, microtubule organizing center, centrosome. Cytoplasm, cytoskeleton, cilium basal body {ECO:0000250|UniProtKB:Q7TSH4} Note=Recruited early and then associates with the growing distal tips Recruited to the mother centriole by KIF24 (PubMed:21620453). Removed from centrioles by TTBK2, leading to initiation of ciliogenesis and localizes only to the daughter centriole in ciliated cells. In cytotoxic T lymphocytes remains associated with the mother centriole during docking of the centrosome at the immunological synapse upon target contact (By similarity). Recruited at the distal end of the mother centriole by MPHOSPH9 (PubMed:30375385) {ECO:0000250|UniProtKB:Q7TSH4, ECO:0000269|PubMed:21620453, ECO:0000269|PubMed:30375385}

#### Tissue Location

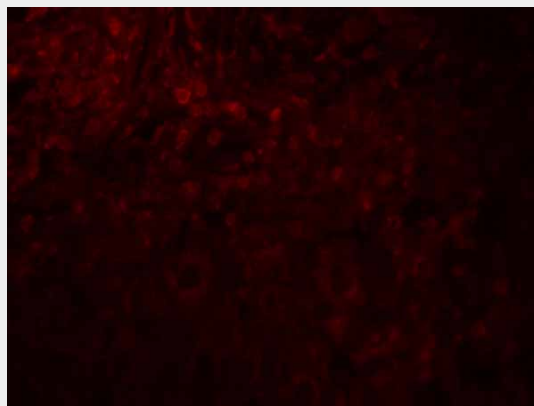
Highly expressed in testis. Detected at intermediate levels in spleen, thymus, prostate, small intestine, colon and peripheral blood leukocytes.

### CCP110 Antibody - Protocols

Provided below are standard protocols that you may find useful for product applications.

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

### CCP110 Antibody - Images



Immunofluorescence of MAGEA4 in human breast cancer tissue with MAGEA4 antibody at 20  $\mu$ g/ml.

### CCP110 Antibody - Background

CCP110 Antibody: CCP110 is a centrosomal protein required for the centrosome to function as a microtubule organizing center and plays an essential role in centrosome duplication. It is a target of cyclin-dependent kinases (CDKs); disruption of CCP110 phosphorylation leads to unscheduled centrosome separation and polyploidy. CCP110 is also a target of SCF (Cyclin F) ubiquitin ligase complex, leading to its degradation, suggesting that this complex controls centrosome homeostasis and mitotic fidelity through CCP110 degradation. The centriolar kinesin Kif24 also interacts with CP110 and remodel microtubules and regulate ciliogenesis.

### **CCP110 Antibody - References**

Chen Z, Indjeian VB, McManus M, et al. CP110, a cell cycle-dependent CDK substrate, regulates centrosome duplication in human cells. *Dev. Cell* 2002; 3:339-50.  
D'Angiolella V, Donato V, Vijayakumar S, et al. SCF (Cyclin F) controls centrosome homeostasis and mitotic fidelity through CP110 degradation. *Nature* 2010; 466:138-42.  
Kobayashi T, Tsang WY, Li J, et al. Centriolar kinesin Kif24 interacts with CP110 to remodel microtubules and regulate ciliogenesis. *Cell* 2011; 145:914-25.