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CCP110 Antibody
Catalog # ASC11478

Specification

CCP110 Antibody - Product Information

Application	**IF**
Primary Accession	O43303
Other Accession	NP_001185951, 9738
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℃ for three months and -20℃, 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:17719545, PubMed:17681131, PubMed:23486064, PubMed:30375385, PubMed:35301795). 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:16760425).

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}

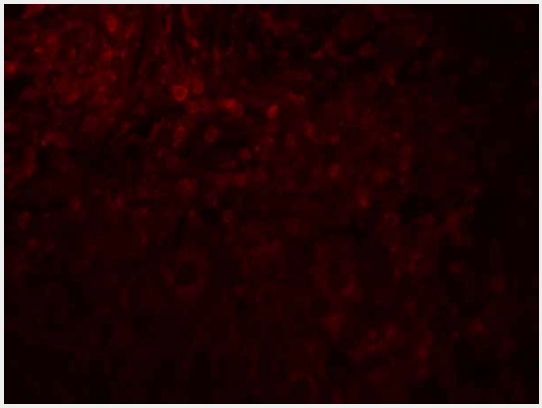
Tissue Location
Highly expressed in testis. Detected at intermediate levels in spleen, thymus, prostate, small intestine, colon and peripheral blood leukocytes.

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 Cytomety
- Cell Culture

CCP110 Antibody - Images



Immunofluorescence of MAGEA4 in human breast cancer tissue with MAGEA4 antibody at 20 µg/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.