

Store at
-20C
#12140

CP110 Antibody



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Applications:	Reactivity:	Sensitivity:	MW (kDa):	Source/Isotype:	UniProt ID:	Entrez-Gene Id:
W	H Mk	Endogenous	130	Rabbit	#O43303	9738

Product Usage Information

Application

Western Blotting

Dilution

1:1000

Storage

Supplied in 10 mM sodium HEPES (pH 7.5), 150 mM NaCl, 100 µg/ml BSA and 50% glycerol. Store at -20°C. Do not aliquot the antibody.

Specificity/Sensitivity

CP110 Antibody recognizes endogenous levels of total CP110 protein. This antibody cross-reacts with a protein of unknown origin at ~65 kDa.

Source / Purification

Polyclonal antibodies are produced by immunizing animals with a synthetic peptide corresponding to residues around Ser580 of human CP110 protein. Antibodies are purified by protein A and peptide affinity chromatography.

Background

The centrosome is an organelle that plays an important role in the mammalian cell cycle. Prior to the onset of mitosis, the single interphase centrosome duplicates only once, creating a pair of daughter centrosomes that will form the two spindle poles after breakdown of the nuclear envelope. Failure to duplicate or overduplication of the centrosome can result in polyploidy and genomic instability (reviewed in 1). Centrosomal protein of 110 kDa (CP110) is a cyclin-dependent kinase (CDK) substrate that plays a critical role in promoting the duplication of centrosomes and correct spindle formation (2). In addition, CP110 has been shown to interact with calmodulin (CaM) and centrin to regulate the progression through cytokinesis (3), and with Cep97 and Cep290 to regulate the formation of primary cilia (4,5). CP110 expression is induced in G1/S with peak expression during S-phase. Degradation of CP110 is mediated by cyclin F in G2-phase and is required for normal progression into M-phase (6).

Background References

1. Hinchcliffe, E.H. and Sluder, G. (2001) *Genes Dev* 15, 1167-81.
2. Chen, Z. et al. (2002) *Dev Cell* 3, 339-50.
3. Tsang, W.Y. et al. (2006) *Mol Biol Cell* 17, 3423-34.
4. Spektor, A. et al. (2007) *Cell* 130, 678-90.
5. Tsang, W.Y. et al. (2008) *Dev Cell* 15, 187-97.
6. D'Angiolella, V. et al. (2010) *Nature* 466, 138-42.

Species Reactivity

Species reactivity is determined by testing in at least one approved application (e.g., western blot).

Western Blot Buffer

IMPORTANT: For western blots, incubate membrane with diluted primary antibody in 5% w/v nonfat dry milk, 1X TBS, 0.1% Tween® 20 at 4°C with gentle shaking, overnight.

Applications Key

W: Western Blotting

Cross-Reactivity Key

H: Human **Mk:** Monkey

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