

# CNAP1 Antibody

Rabbit mAb

Catalog # AP92785

## Product Information

<b>Application</b>	WB
<b>Primary Accession</b>	<a href="#">Q15021</a>
<b>Reactivity</b>	Human
<b>Clonality</b>	Monoclonal
<b>Other Names</b>	CAPD2; CEP2; CEP250; CNAP1; CND1; Condensin; hCAPD2; NCAPD2;
<b>Isotype</b>	Rabbit IgG
<b>Host</b>	Rabbit
<b>Calculated MW</b>	157182

## Additional Information

<b>Dilution</b>	WB 1:500~1:2000
<b>Purification</b>	Affinity-chromatography
<b>Immunogen</b>	A synthesized peptide derived from human CNAP1
<b>Description</b>	CNAP1/hCAP-D2 is a regulatory subunit of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condensed chromosomes.
<b>Storage Condition and Buffer</b>	Rabbit IgG in phosphate buffered saline , pH 7.4, 150mM NaCl, 0.02% sodium azide and 50% glycerol. Store at +4°C short term. Store at -20°C long term. Avoid freeze / thaw cycle.

## Protein Information

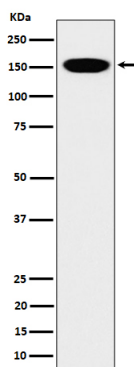
<b>Name</b>	NCAPD2 {ECO:0000303   PubMed:27737959, ECO:0000312   HGNC:HGNC:24305}
<b>Function</b>	Regulatory subunit of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases. May target the condensin complex to DNA via its C-terminal domain (PubMed: <a href="#">11136719</a> ). May promote the resolution of double-strand DNA catenanes (intertwines) between sister chromatids. Condensin-mediated compaction likely increases tension in catenated sister chromatids, providing directionality for type II topoisomerase-mediated strand exchanges toward chromatid decatenation. Required for decatenation of non-centromeric ultrafine DNA bridges during anaphase. Early in neurogenesis, may play an essential role to ensure accurate mitotic chromosome condensation in neuron stem cells, ultimately affecting neuron pool and cortex size (PubMed: <a href="#">27737959</a> ).

## Cellular Location

Nucleus. Cytoplasm. Chromosome. Note=In interphase cells, the majority of the condensin complex is found in the cytoplasm, while a minority of the complex is associated with chromatin. A subpopulation of the complex however remains associated with chromosome foci in interphase cells. During mitosis, most of the condensin complex is associated with the chromatin. At the onset of prophase, the regulatory subunits of the complex are phosphorylated by CDK1, leading to condensin's association with chromosome arms and to chromosome condensation. Dissociation from chromosomes is observed in late telophase

## Images

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Western blot analysis of CNAP1 expression in HeLa cell lysate.

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