

# **CNAP1** Antibody

Rabbit mAb Catalog # AP92785

### **Specification**

#### **CNAP1 Antibody - Product Information**

Application WB
Primary Accession Q15021
Clonality Monoclonal

**Other Names** 

CAPD2; CEP2; CEP250; CNAP1; CND1; Condensin; hCAPD2; NCAPD2;

Isotype Rabbit IgG
Host Rabbit
Calculated MW 157182 Da

### **CNAP1** Antibody - Additional Information

Dilution WB~~1:1000

Purification Affinity-chromatography

Immunogen A synthesized peptide derived from human

CNAP1

Description CNAP1/hCAP-D2 is a regulatory subunit of

the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condensed chromosomes. Rabbit IgG in phosphate buffered saline,

Storage Condition and Buffer 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.

# **CNAP1 Antibody - Protein Information**

Name NCAPD2 {ECO:0000303|PubMed:27737959, ECO:0000312|HGNC:HGNC:24305}

#### **Function**

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="http://www.uniprot.org/citations/11136719" target="\_blank">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="http://www.uniprot.org/citations/27737959" target=" blank">27737959</a>).

#### **Cellular Location**

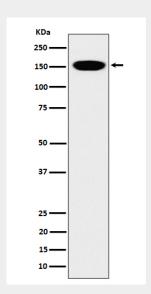
Nucleus. Cytoplasm. Chromosome. Note=In interphase cells, the majority of the condensin complex is found in the cytoplasm, while a minority of the complex is associated with chromatin. A subpopulation of the complex however remains associated with chromosome foci in interphase cells. During mitosis, 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

## **CNAP1 Antibody - Protocols**

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

- Western Blot
- Blocking Peptides
- Dot Blot
- <u>Immunohistochemistry</u>
- Immunofluorescence
- Immunoprecipitation
- Flow Cytomety
- Cell Culture

# **CNAP1** Antibody - Images



Western blot analysis of CNAP1 expression in HeLa cell lysate.