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NCAPH2 Antibody (Center) Blocking Peptide

Synthetic peptide
Catalog # BP1973c

Specification

NCAPH2 Antibody (Center) Blocking Peptide - Product Information

Primary Accession	Q6IBW4
Other Accession	Q9BUT3

NCAPH2 Antibody (Center) Blocking Peptide - Additional Information

Gene ID 29781

Other Names
Condensin-2 complex subunit H2, Chromosome-associated protein H2, hCAP-H2, Kleisin-beta, Non-SMC condensin II complex subunit H2, NCAPH2, CAPH2

Target/Specificity
The synthetic peptide sequence used to generate the antibody AP1973c was selected from the Center region of human NCAPH2. A 10 to 100 fold molar excess to antibody is recommended. Precise conditions should be optimized for a particular assay.

Format
Peptides are lyophilized in a solid powder format. Peptides can be reconstituted in solution using the appropriate buffer as needed.

Storage
Maintain refrigerated at 2-8°C for up to 6 months. For long term storage store at -20°C.

Precautions
This product is for research use only. Not for use in diagnostic or therapeutic procedures.

NCAPH2 Antibody (Center) Blocking Peptide - Protein Information

Name NCAPH2

Synonyms CAPH2

Function
Regulatory subunit of the condensin-2 complex, a complex that seems to provide chromosomes with an additional level of organization and rigidity and in establishing mitotic chromosome architecture (PubMed:14532007). 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 chromatin bridges at 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 (By similarity). Seems to have lineage-specific role in T-cell development (PubMed:14532007).

Cellular Location
Nucleus. Chromosome. Note=Distributed along the arms of chromosomes assembled in vivo and in vitro

NCAPH2 Antibody (Center) Blocking Peptide - Protocols

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

- Blocking Peptides

NCAPH2 Antibody (Center) Blocking Peptide - Images

NCAPH2 Antibody (Center) Blocking Peptide - Background

Structural maintenance of chromosomes (SMC) and non-SMC condensin proteins associate into complexes that have been implicated in the process of chromosome condensation. A crucial prerequisite for accurate segregation of replicated sister chromatids is the condensation of the chromosomes into a manageable form prior to metaphase. The condensin I complex consists of two SMC subunits, SMC2 and SMC4, and three non-SMC subunits, CAP-H, CAP-G, and CAP-D2. An alternative complex, the condensin II complex, contains alternate non-SMC subunits, CAP-G2, CAP-H2, and CAP-D3. CAP-H2 is also known as Non-SMC condensin II complex, subunit H2 (NCAPH2) or kleisin beta isoform 2. The three non-SMC subunits in the condensing complexes form a regulatory subcomplex that is required to activate the SMC ATPases and to promote mitosis-specific chromatin binding of the holocomplex. The precise individual functions of each non-SMC protein in activation remain to be determined.

NCAPH2 Antibody (Center) Blocking Peptide - References

Ono,T., et al. Cell 115 (1), 109-121 (2003).Schleiffer,A., et al. Mol. Cell 11 (3), 571-575 (2003).Loftus, B.J., et al., Genomics 60(3):295-308 (1999).