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Anti-NCAPH Antibody

Catalog # AP51378

Product Information

Application	WB, IF/IC
Primary Accession	Q15003
Reactivity	Human, Mouse, Rat
Host	Rabbit
Clonality	Polyclonal
Calculated MW	82563

Additional Information

Gene ID	23397
Other Names	BRRN; BRRN1; CAPH; KIAA0074; Condensin complex subunit 2; Barren homolog protein 1; Chromosome-associated protein H; hCAP-H; Non-SMC condensin I complex subunit H; XCAP-H homolog
Target/Specificity	KLH-conjugated synthetic peptide encompassing a sequence within the center region of human NCAPH. The exact sequence is proprietary.
Dilution	WB~~WB (1/500 - 1/1000) IF/IC~~N/A
Format	Liquid in 0.42% Potassium phosphate, 0.87% Sodium chloride, pH 7.3, 30% glycerol, and 0.01% sodium azide.
Storage	Store at -20 °C.Stable for 12 months from date of receipt

Protein Information

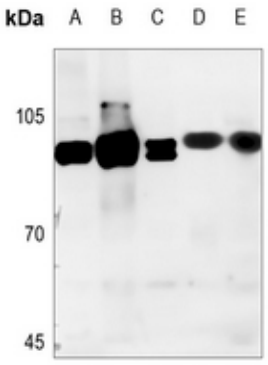
Name	NCAPH {ECO:0000303|PubMed:27737959, ECO:0000312|HGNC:HGNC:1112}
Function	Regulatory subunit of the condensin complex, a complex required for conversion of interphase chromatin into mitotic-like condense chromosomes. The condensin complex probably introduces positive supercoils into relaxed DNA in the presence of type I topoisomerases and converts nicked DNA into positive knotted forms in the presence of type II topoisomerases (PubMed:11136719). 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:27737959).
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
Tissue Location	Widely expressed at low level. Expressed in proliferating cells.

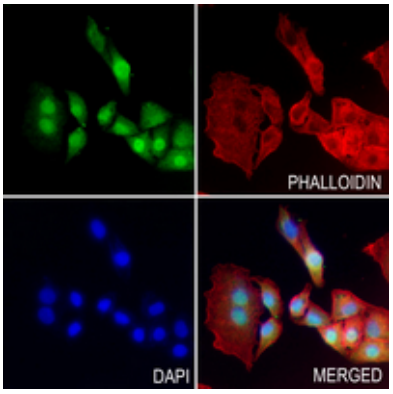
References

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Kimura K.,et al.J. Biol. Chem. 276:5417-5420(2001).
Daub H.,et al.Mol. Cell 31:438-448(2008).
Dephoure N.,et al.Proc. Natl. Acad. Sci. U.S.A. 105:10762-10767(2008).

Images



Western blot analysis of NCAPH expression in HEK293T (A), SGC7901 (B), A549 (C), mouse spleen (D), rat heart (E) whole cell lysates. (Predicted band size: 82 kD; Observed band size: 97 kD)



Immunofluorescent analysis of NCAPH staining in A549 cells. Formalin-fixed cells were permeabilized with 0.1% Triton X-100 in TBS for 5-10 minutes and blocked with 3% BSA-PBS for 30 minutes at room temperature. Cells were probed with the primary antibody in 3% BSA-PBS and incubated overnight at 4 °C in a hidified chamber. Cells were washed with PBST and incubated with a AF488-conjugated secondary antibody (green) in PBS at room temperature in the dark. Phalloidin - AF594 was used to stain Actin filaments (red). DAPI was used to stain the cell nuclei (blue).

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