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# CAPH Rabbit pAb

Catalog # AP98903

## Product Information

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| **Application** | IHC-P, IHC-F, IF |
| **Primary Accession** | Q15003 |
| **Other Accession** | Q15003 |
| **Reactivity** | Rat |
| **Predicted** | Pig, Human, Mouse, Rabbit, Horse |
| **Host** | Rabbit |
| **Clonality** | Polyclonal |
| **Calculated MW** | 82563 |
| **Physical State** | Liquid |
| **Immunogen** | KLH conjugated synthetic peptide derived from human BRRN1/CAPH |
| **Epitope Specificity** | 601-700/741 |
| **Isotype** | IgG |
| **Purity** | affinity purified by Protein A |
| **Buffer** | 0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol. |
| **SIMILARITY** | Belongs to the CND2 (condensin subunit 2) family. |
| **SUBUNIT** | Component of the condensin complex, which contains the SMC2 and SMC4 heterodimer, and three non SMC subunits that probably regulate the complex: NCAPH/BRRN1, NCAPD2/CAPD2 and NCAPG. |
| **Post-translational modifications** | Phosphorylated by CDK1. Its phosphorylation, as well as that of NCAPD2 and NCAPG subunits, activates the condensin complex and is required for chromosome condensation (By similarity). |
| **Important Note** | This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications. |
| **Background Descriptions** | 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. |

## Additional Information

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| **Gene ID** | 23397 |
| **Other Names** | BRRN1; CAP-H; CAPH; MCPH23; NCAPH1; A730011O11Rik; HCAP-H; mCAP-H; CND2_HUMAN; NCAPH; Barren homolog protein 1; Chromosome-associated protein H (hCAP-H); Non-SMC condensin I complex subunit H; XCAP-H homolog; BRRN; KIAA0074; CND2_MOUSE; Chromosome-associated protein H (mCAP-H); barren (Drosophila) homolog; barren homolog (Drosophila); barren homolog 1 (Drosophila); non-SMC condensin I complex, subunit H |
| **Dilution** | IHC-P=1:100-500,IHC-F=1:100-500,IF=1:100-500 |
| **Storage** | Store at -20 °C for one year. Avoid repeated freeze/thaw cycles. When |

reconstituted in sterile pH 7.4 0.01M PBS or diluent of antibody the antibody is stable for at least two weeks at 2-4 °C.

## Protein Information

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| **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. |

Please note: All products are 'FOR RESEARCH USE ONLY. NOT FOR USE IN DIAGNOSTIC OR THERAPEUTIC PROCEDURES'.