

SMC4 Polyclonal Antibody
Purified Rabbit Polyclonal Antibody (Pab)
Catalog # AP58732**Specification****SMC4 Polyclonal Antibody - Product Information**

Application	WB, IHC-P, IHC-F, IF, E
Primary Accession	O9NTJ3
Reactivity	Rat, Pig, Dog, Bovine
Host	Rabbit
Clonality	Polyclonal
Calculated MW	147 KDa
Physical State	Liquid
Immunogen	KLH conjugated synthetic peptide derived from human SMC4
Epitope Specificity	101-200/1288
Isotype	IgG
Purity	
affinity purified by Protein A	
Buffer	0.01M TBS (pH7.4) with 1% BSA, 0.02% Proclin300 and 50% Glycerol.
SUBCELLULAR 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 CDC2, leading to condensin's association with chromosome arms and to chromosome condensation. Dissociation from chromosomes is observed in late telophase.
SIMILARITY	Belongs to the SMC family. SMC4 subfamily.
SUBUNIT	Forms a heterodimer with SMC2. Component of the condensin complex, which contains the SMC2 and SMC4 heterodimer, and three non SMC subunits that probably regulate the complex: BRRN1/CAPH, CNAP1/CAPD2 and CAPG.
Important Note	This product as supplied is intended for research use only, not for use in human, therapeutic or diagnostic applications.

Background Descriptions

SMC4 is a central component of the condensin complex, which is 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.

SMC4 Polyclonal Antibody - Additional Information

Gene ID 10051

Other Names

Structural maintenance of chromosomes protein 4, SMC protein 4, SMC-4, Chromosome-associated polypeptide C, hCAP-C, XCAP-C homolog, SMC4, CAPC, SMC4L1

Target/Specificity

Widely expressed. Higher expression in testis, colon, thymus.

Dilution

WB~~1:1000<br \>IHC-P~~N/A<br \>IHC-F~~N/A<br \>IF~~1:50~200<br \>E~~N/A

Format

0.01M TBS(pH7.4), 0.09% (W/V) sodium azide and 50% Glyce

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.

SMC4 Polyclonal Antibody - Protein Information

Name SMC4

Synonyms CAPC, SMC4L1

Function

Central component 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.

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 CDC2, leading to condensin's association with chromosome arms and to chromosome condensation. Dissociation from chromosomes is observed in late telophase

Tissue Location

Widely expressed. Higher expression in testis, colon, thymus.

SMC4 Polyclonal Antibody - Protocols

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

- [Western Blot](#)
- [Blocking Peptides](#)
- [Dot Blot](#)
- [Immunohistochemistry](#)
- [Immunofluorescence](#)
- [Immunoprecipitation](#)
- [Flow Cytometry](#)
- [Cell Culture](#)

SMC4 Polyclonal Antibody - Images