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Product datasheet

Anti-SMC4 antibody - N-terminal ab229213

1 References 2 Images

Overview

Product name	Anti-SMC4 antibody - N-terminal
Description	Rabbit polyclonal to SMC4 - N-terminal
Host species	Rabbit
Tested applications	**Suitable for:** WB, IP
Species reactivity	**Reacts with:** Human **Predicted to work with:** Rhesus monkey
Immunogen	Recombinant fragment within Human SMC4 (N terminal). The exact sequence is proprietary. Database link: **Q9NTJ3**
Positive control	WB: HEK-293T, A431, HeLa and HepG2 whole cell lysates. IP: HEK-293T whole cell lysate.
General notes	The Life Science industry has been in the grips of a reproducibility crisis for a number of years. Abcam is leading the way in addressing this with our range of recombinant monoclonal antibodies and knockout edited cell lines for gold-standard validation. Please check that this product meets your needs before purchasing. If you have any questions, special requirements or concerns, please send us an inquiry and/or contact our Support team ahead of purchase. Recommended alternatives for this product can be found below, along with publications, customer reviews and Q&As

Properties

Form	Liquid
Storage instructions	Shipped at 4°C. Store at +4°C short term (1-2 weeks). Upon delivery aliquot. Store at -20°C long term. Avoid freeze / thaw cycle.
Storage buffer	pH: 7.00 Preservative: 0.025% Proclin 300 Constituents: 79% PBS, 20% Glycerol (glycerin, glycerine)
Purity	Immunogen affinity purified
Clonality	Polyclonal
Isotype	IgG

Applications

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The Abpromise guarantee Our **Abpromise guarantee** covers the use of ab229213 in the following tested applications.

The application notes include recommended starting dilutions; optimal dilutions/concentrations should be determined by the end user.

Application	Abreviews	Notes
WB		1/500 - 1/3000. Predicted molecular weight: 147 kDa.
IP		1/100 - 1/500.

Target

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.

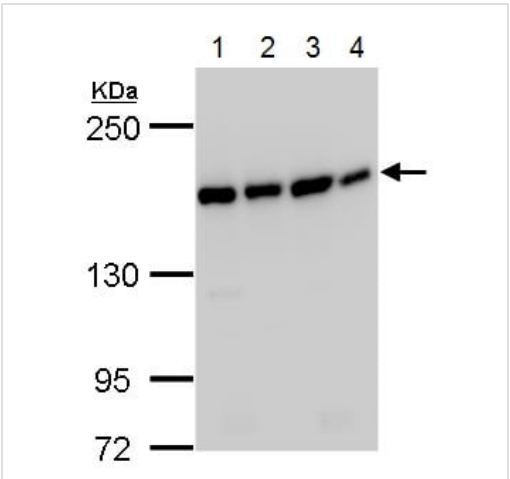
Tissue specificity Widely expressed. Higher expression in testis, colon, thymus.

Sequence similarities Belongs to the SMC family. SMC4 subfamily.

Domain The hinge domain, which separates the large intramolecular coiled coil regions, allows the heterodimerization with SMC2, forming a V-shaped heterodimer.

Cellular localization Nucleus. Cytoplasm. Chromosome. 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.

Images



Western blot - Anti-SMC4 antibody - N-terminal (ab229213)

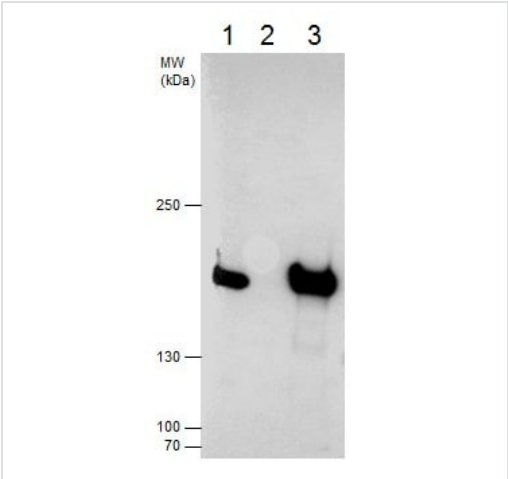
All lanes : Anti-SMC4 antibody - N-terminal (ab229213) at 1/1000 dilution

Lane 1 : HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell lysate
Lane 2 : A431 (human epidermoid carcinoma cell line) whole cell lysate
Lane 3 : HeLa (human epithelial cell line from cervix adenocarcinoma) whole cell lysate
Lane 4 : HepG2 (human liver hepatocellular carcinoma cell line) whole cell lysate

Lysates/proteins at 30 µg per lane.

Predicted band size: 147 kDa

5% SDS-PAGE gel.



Immunoprecipitation - Anti-SMC4 antibody - N-terminal (ab229213)

SMC4 was immunoprecipitated from HEK-293T (human epithelial cell line from embryonic kidney transformed with large T antigen) whole cell extract with 5 µg of ab229213. Western blot was performed from the immunoprecipitate using ab229213. Anti-Rabbit IgG was used as a secondary reagent.

Lane 1: HEK-293T whole cell extract (Input).

Lane 2: Control IgG instead of ab229213 in HEK-293T whole cell extract.

Lane 3: ab229213 IP in HEK-293T whole cell extract.

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